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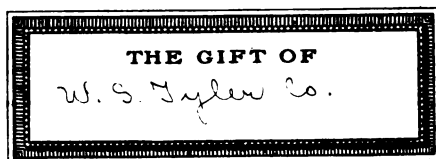
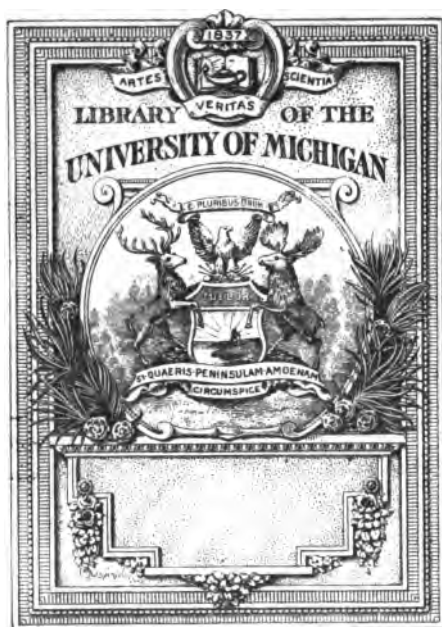
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ION-CAP

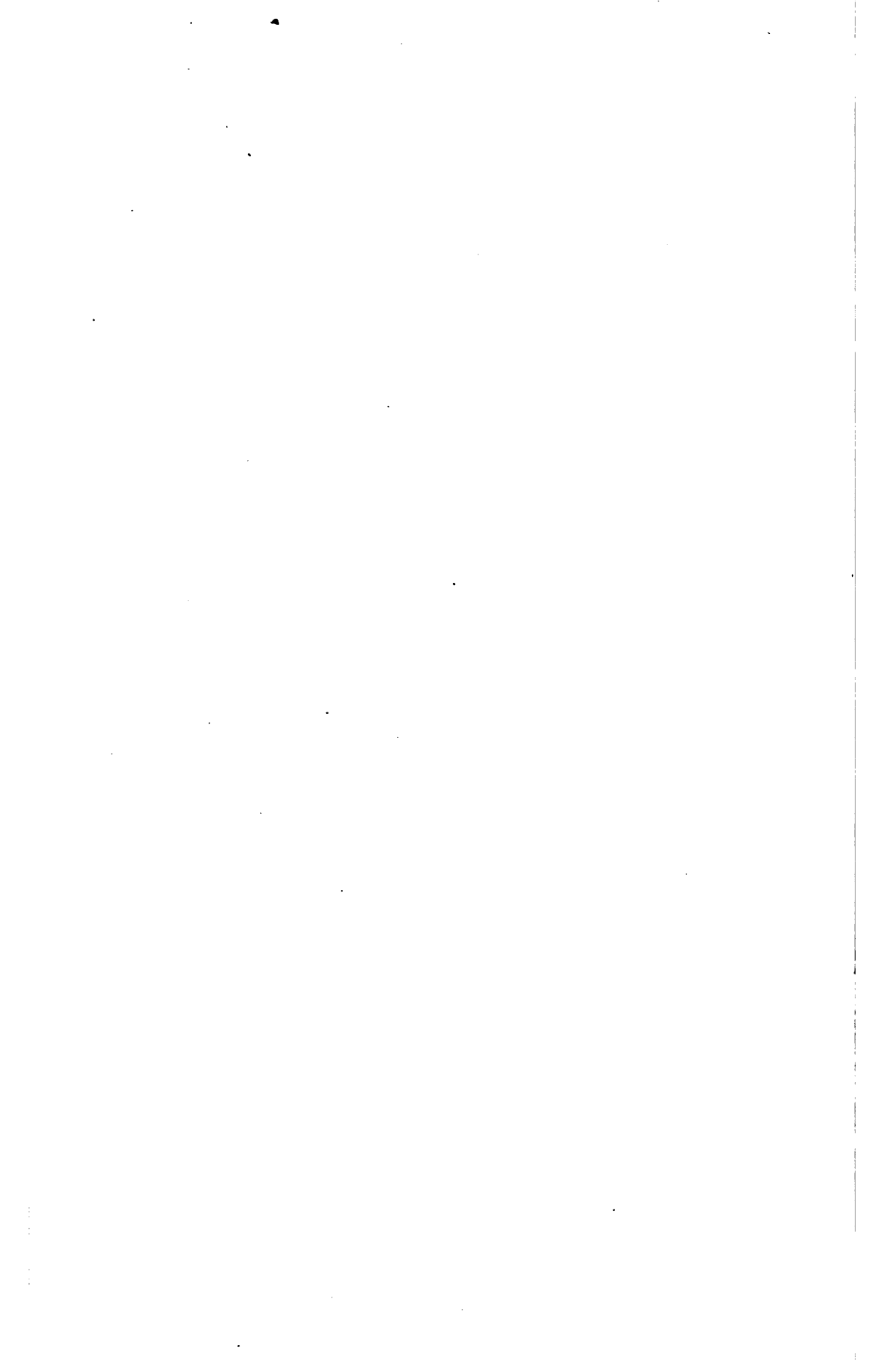




TS

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T98



*The
W. S. Tyler
Company*



The

W.S.TYLER COMPANY PLANT



The
W. S. TYLER
COMPANY

Cleveland

Manufacturers of
TON-CAP
SCREENS

*made from iron, steel, brass,
copper and phosphor bronze
for all uses; also makers
of TYLER double crimped
cloth and mining screens.*

GENERAL OFFICES and WORKS
St. Clair Ave N.E. from 34th to 38th Sts.
CLEVELAND, OHIO, U.S.A



CATALOGUE No. 35

Ton-Cap Screens

TON-CAP is a screen with oblong openings especially designed to present the greatest possible discharging or screening surface. In this it represents what the name indicates, "tonnage-capacity," in handling screenable materials.

Like other Tyler products, TON-CAP is the result of building a screen by skilled labor and special treatment, especially adapted for the service required. Thus two important factors are combined in TON-CAP. It is a "tonnage-capacity" screen and a "quality" screen.

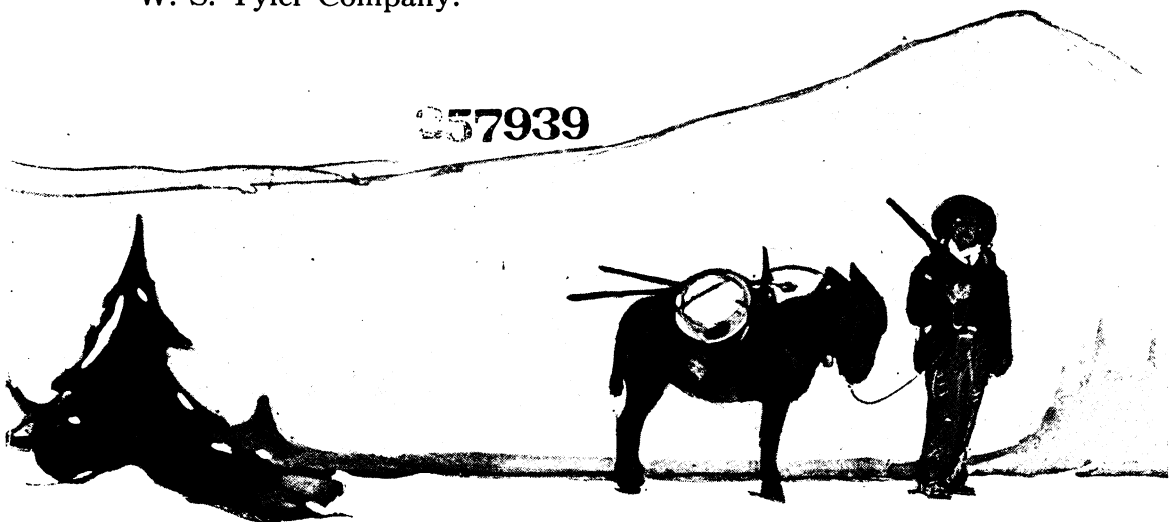
The TON-CAP idea is fast being established in the minds of screen users everywhere as there are large profits to be had from the additional tonnage produced by TON-CAP screen.

This book is issued with a view of assisting the user in applying TON-CAP screen to any particular service or to replace any other type of screen with TON-CAP.

A list of standard TON-CAP numbers is herein shown, but to secure a screen for a definite service, the best results are obtained by supplying the company with information that will enable them to co-operate in selecting a number best adapted for the work. One important reason why the company should be consulted about the selection of screen is because of the unusual shape of the openings, making it necessary to have data and records of TON-CAP sizing to compare with that of other screens.

TON-CAP screen is now used throughout the various countries of the world and every feature of it has been invented and introduced by The W. S. Tyler Company.

257939



20713 CM
1-11-40 mgz
Belena

Profit in Tonnage Capacity

TON-CAP Screen will show increased tonnage-capacity and more profit by reason of its immense discharging surface — a larger volume of properly sized product will pass the screen in a given time with the same or less power energy.

Tonnage-Capacity are the “magic” words that have spelled SUCCESS for most of the big industrial enterprises in this country.

Now, if yours is a reduction problem wherein screens are employed, your profits are largely dependent on tonnage-capacity.

The Screens are the vital point in determining this tonnage. They determine the amount of product your crushing machinery can handle.

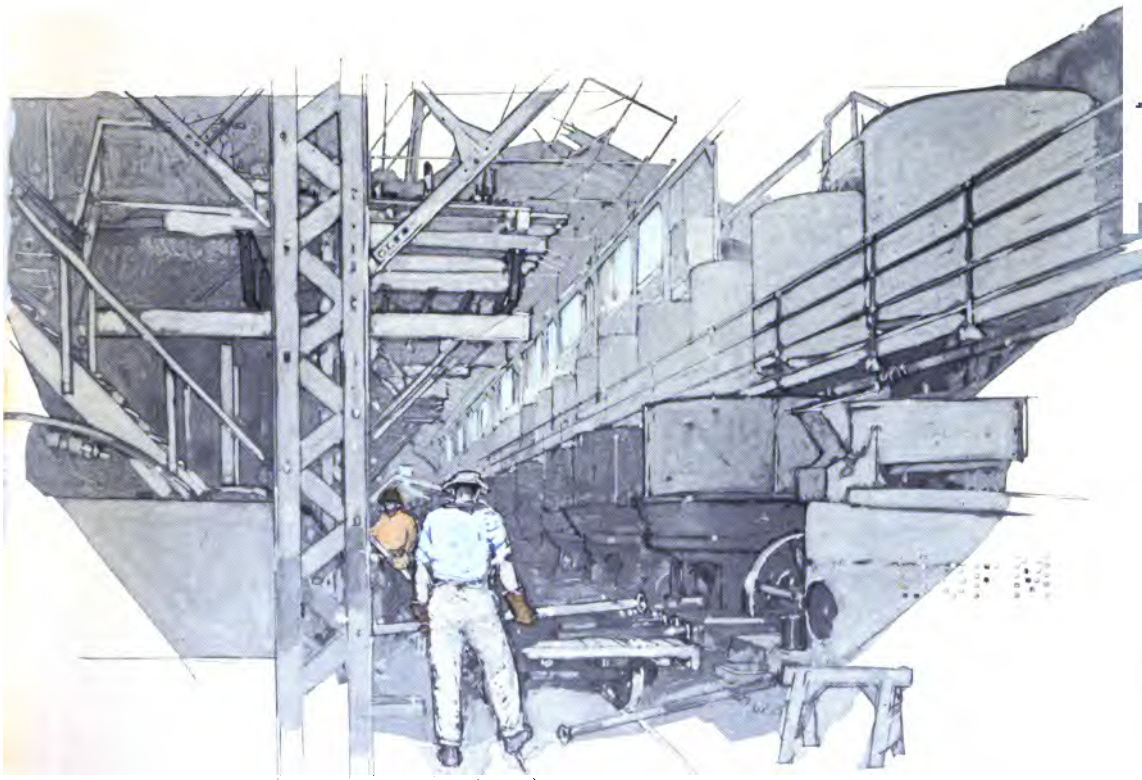
If the crushed particles cannot get through the screen as soon as they are reduced to the size of the screen opening, and so make room for more material, they reduce the tonnage that can be handled by the crusher.

If capacity means profit, then TON-CAP spells DIVIDENDS to all industries involving the sizing of products.

The increased capacity here does not mean the tearing down or re-equipping of mills; it does not even mean repair parts — just a mill supply — TON-CAP screen on the machinery now in use.

TON-CAP is all that the name implies — “TONNAGE-CAPACITY” and is being used wherever the full value of the largest possible output is realized.

*The W. S. Tyler
Company*



Discharge Area

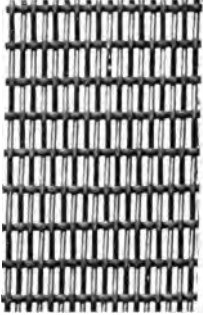
THE illustrations at the top of the opposite page indicate the greater discharge area of the Tyler TON-CAP screen over punched sheet metal screens of the slotted type.

The No. 93 TON-CAP screen has .367 square inches of discharge area per square inch of screen. In one square foot of the screen there would be 53 square inches of discharge area. The No. 6 diagonal slot screen to produce the same size product has only .160 square inches of discharge area per square inch or 23 square inches of discharge area per square foot of screen. In other words, the No. 93 TON-CAP screen has 30 square inches per square foot, or 129 per cent more air space or discharge area than the No. 6 diagonal slot screen. The small squares on the opposite page showing .367 square inches and .160 square inches are drawn to scale and indicate the relative amount of discharge area per square inch in each of these types of screen.

The efficiency of TON-CAP screen depends primarily on its immense discharge area — the blank surface being reduced to a minimum. In TON-CAP screen this capacity is obtained without sacrificing the life of the screen. Every hole punched in a sheet of metal weakens it just that much — the closer the opening, the weaker the screen. In woven wire, the strength of the wire is not impaired in weaving but in a given size of wire, the closer the openings the stronger the screen becomes.

Comparison of Discharge Area

Width of Slot .027-Inch

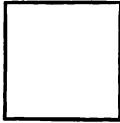


No. 93 TON-CAP
.367 Sq. In. Discharge Area per Sq. In.
53. Sq. In. Discharge Area per Sq. Ft.

Width of Slot .027-Inch



No. 6 DIAGONAL SLOT (25 Mesh)
.160 Sq. In. Discharge Area per Sq. In.
23. Sq. In. Discharge Area per Sq. Ft.



.367 Sq. In.
Discharge Area in
1 Sq. In.



.160 Sq. In.
Discharge Area in
1 Sq. In.

No. 93 TON-CAP has 129 per cent more air space or discharging area than No. 6 Diagonal Slot to produce the same sized product.

In one square foot of screen No. 93 TON-CAP has 30 square inches more of air space than the Diagonal Slot Screen.



Discharge Area

THE illustrations at the top of the opposite page indicate the greater discharge area of the Tyler TON-CAP screen over punched sheet metal of the round-hole type.

In the illustration on the opposite page, the No. 38 TON-CAP screen has a discharge area of .420 square inches per square inch of screen or 60.5 square inches of discharging area per square foot, as against a 3 millimeter round hole perforated plate to produce the same size product, with .219 square inches discharge area per square inch of screen or 31.5 square inches discharge area per square foot. This is a difference in favor of No. 38 TON-CAP screen of 29 square inches of discharge area per square foot of screen or 92 per cent more than is found in the perforated plate.

The small squares drawn to scale representing the .420 square inches and .219 square inches of discharge area will picture to the eye the advantage of using TON-CAP screen where capacity is desired.

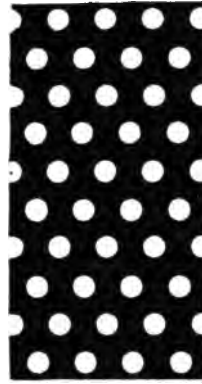
The efficient screen is the one that will let the material through—not hold it back with blank metal. TON-CAP has the largest proportion of discharging surface of any screen made and so will permit the most rapid passing of particles that will go through the screen openings.

From these figures and illustrations, it will easily be seen why TON-CAP screen has replaced perforated metal wherever capacity is the important feature in handling products to be screened.

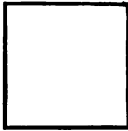
Comparison of Discharge Area



No. 38 TON-CAP
.420 Sq. In. Discharge Area per Sq. In.
60.5 Sq. In. Discharge Area per Sq. Ft.



3 MM. ROUND HOLE
.219 Sq. In. Discharge Area per Sq. In.
31.5 Sq. In. Discharge Area per Sq. Ft.



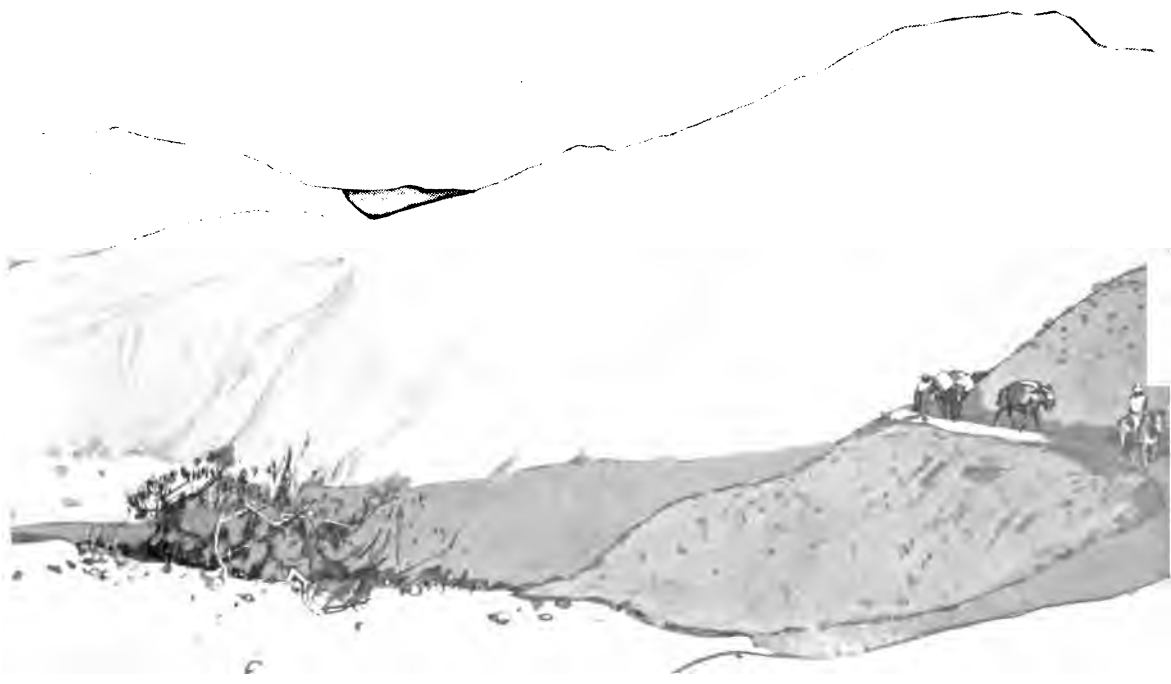
.420 Sq. In.
Discharge Area in
1 Sq. In.



.219 Sq. In.
Discharge Area in
1 Sq. In.

No. 38 TON-CAP has 92 per cent more air space or discharging surface than 3 mm. Round Hole to produce the same sized product.

In one square foot of screen No. 38 TON-CAP has 29 square inches of air space more than the punched metal.



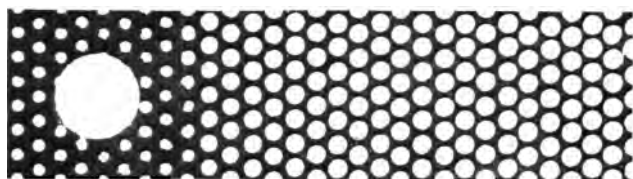
Effect of Screen Wear on Sizing

THE effect of wear on TON-CAP screen as compared with perforated sheets is illustrated on the opposite page. These illustrations show reproductions of actual specimens as they were found before and after using.

The illustration at the top of the page is especially interesting as it shows that the round hole opening before the screen was discarded wore to more than twice the size of the original opening. Then too, in the second illustration from the top of the page, the effect of wear is shown on oblong opening perforated screens. The openings in the perforated metal present a raw cut surface which is easily worn away by the material being screened. This wear produces large polliwog-shaped openings which allow coarse particles to pass the screen. Each day these openings increase and the sizing becomes steadily larger and more irregular. The lower illustration on the opposite page will show the advantage of TON-CAP screen in this connection because the openings remain practically the same throughout the screen life. The abrasion is practically all on the surface of the screen and not between the wires; the process of drawing the wire produces a smooth hard surface, which resists abrasion, so that the material passing the screen does not wear away the wire to any considerable extent, therefore, the spaces between the wires of TON-CAP do not enlarge perceptibly while the screen is in service.

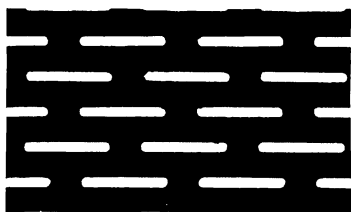
The effect of screen wear on sizing is very apparent and the first consideration in securing uniform sizing is the selection of a screen in which the size of opening does not vary greatly during the life of the screen.

*The W. S. Tyler
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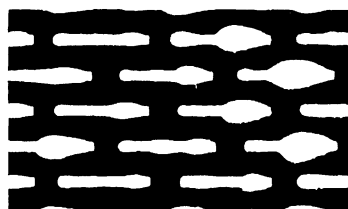


NOT WORN

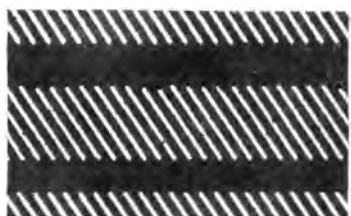
WORN



NEW SCREEN



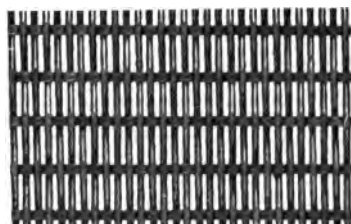
SAME SCREEN WORN (Polliwogs)



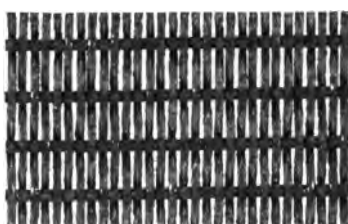
NEW SCREEN



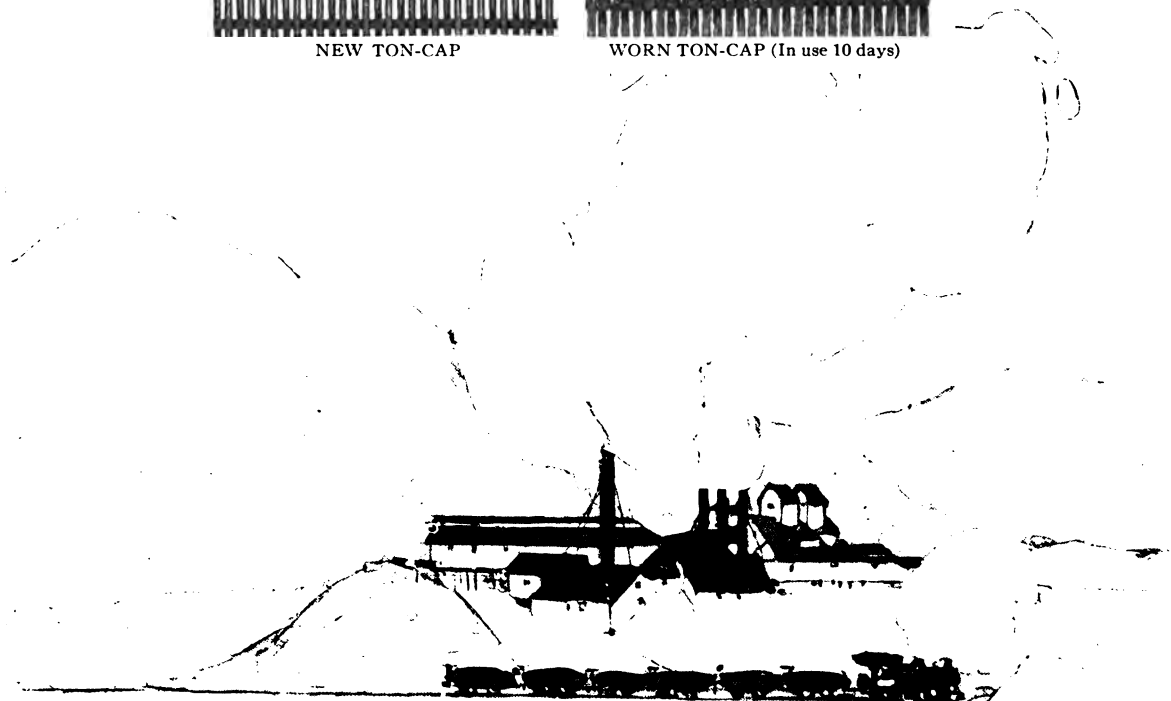
SAME SCREEN WORN (In use 8 days)



NEW TON-CAP



WORN TON-CAP (In use 10 days)



Ton-Cap to replace Round Hole Opening Screen

BY THE selection of a TON-CAP screen with the proper width of slot, the same sizing can be produced as with round hole punched screen.

Many experiments with these two types of screen have been made in handling various materials, and the screen analysis has shown that the same sizing is produced by either the round hole or the relative oblong opening in the TON-CAP screen.

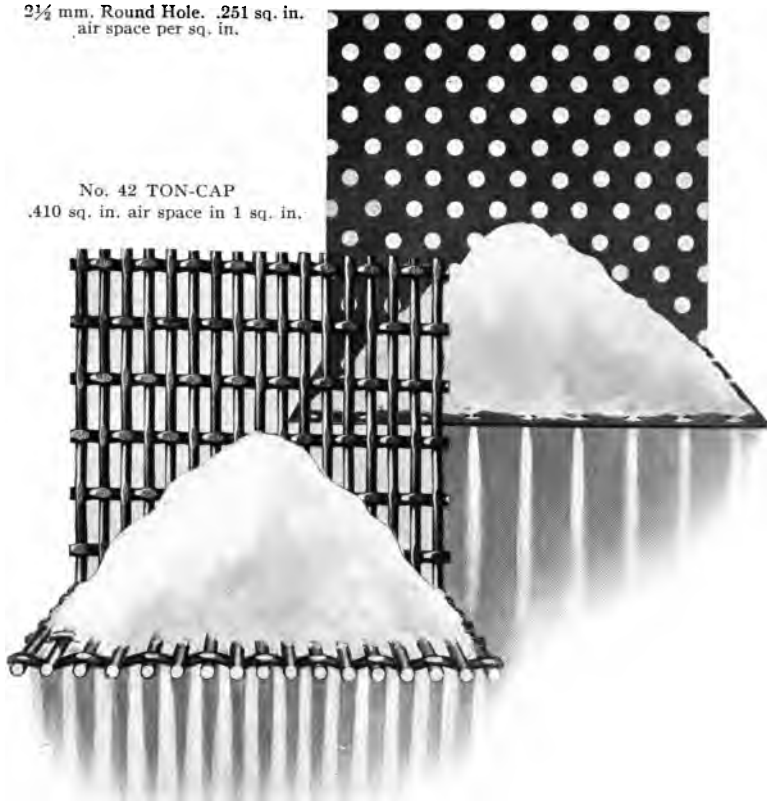
While the analysis showed the range of particles of about the same size, there was this difference — where the tests were made on stamps or rotary crushers, it was found that the TON-CAP product showed a larger percentage in the middles; that is, there were less fines or slime, due to the larger screening area of the TON-CAP screen. Where the sizing tests were made on trommels, the range in the size of particles was the same but it was found that the TON-CAP screen had made a much more thorough separation; that is, the product had been screened much cleaner, all of the fine material having passed the screen, whereas in the product obtained with the perforated plate, there were considerable fines in the product that had passed through the trommel due to the larger amount of dead surface in the screen.

The illustration on the opposite page shows that more material will pass the TON-CAP screen with the oblong opening within a given time than will pass a round hole screen producing the same sizing.

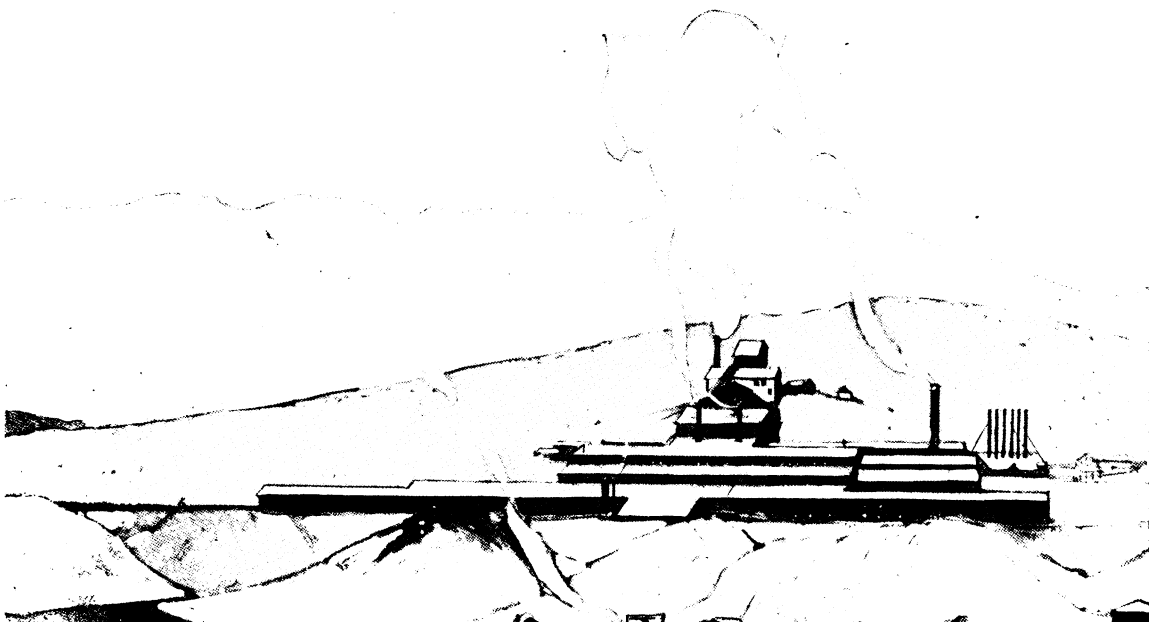
*The W. S. Tyler
Company*

2½ mm. Round Hole. .251 sq. in.
air space per sq. in.

No. 42 TON-CAP
.410 sq. in. air space in 1 sq. in.



Illustrating Capacity of Ton-Cap



Testing Laboratory

SCREEN troubles are the big leaks in production expense. To locate screen troubles and remedy them is the mission of the Tyler Laboratory, and this service is for any user of screens, without fee.

The equipment of this department enables a test with the actual screen in question in every instance, so that conclusions can be made in recommending screen to produce a given sizing.

A sample of product to be screened, also a small sample of the screened product, showing the required fineness, may be sent to this laboratory for testing the sizing by screen analysis and the selection of the number of TON-CAP screen to produce that sizing.

In making tests with reference to fineness, a complete screen analysis is made using the Tyler Standard Screen Scale testing sieves and a full report of such tests will be willingly submitted to the screen user.

Under the old method, the screen user had to do the experimenting in the mill, going to the expense of testing various screens until something was found that would produce the desired result. The Tyler Laboratory, however, can save much of this expense, being equipped with sections of screen covering more than two thousand varieties. These vary in mesh, metal, diameter of wire and material.

A screen selected by laboratory test may not meet all the conditions in actual practice but in the screen chosen for the work, the element of sizing can be brought to a very close proximity of what is required.

*The W. S. Tyler
Company*



A Corner of the Tyler Testing Laboratory



Ton-Cap Screen for any use

TON-CAP screen is supplied to all industries for use in screening any material, wet or dry. It is therefore not necessary to mention the various products it will handle, for it is now being used successfully on all materials that are screened.

In ordering TON-CAP for any service, it is important to state how it is to be used and the kind of material that is to be screened. Furthermore, it is necessary to describe explicitly the type of screen it is to replace, stating size and shape of openings, thickness of wire or metal. Better still, accompany the order with a small sample of the screen in use — then TON-CAP can be selected to produce the same sizing.

Each TON-CAP screen is designated by a number to avoid complicated details in ordering, therefore, this number should be used on repeat orders.

TON-CAP cannot be supplied in rolls but is cut in sections the size of screen frames in order to accommodate the rolling process. For instance, an order may read: "20 pcs. 5' 6" x 36" No. 77 Steel TON-CAP."

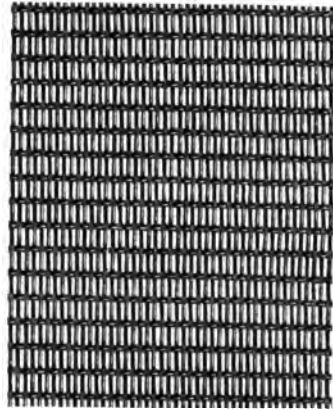
TON-CAP can be selected with discharge area to show a very great increase in tonnage over other types of screen.

Correspondence is invited covering any information with reference to the use or selection of TON-CAP for any service.

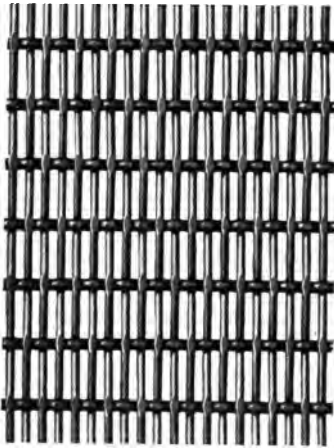
*The W.S. Tyler
Company*



No. 22 TON-CAP



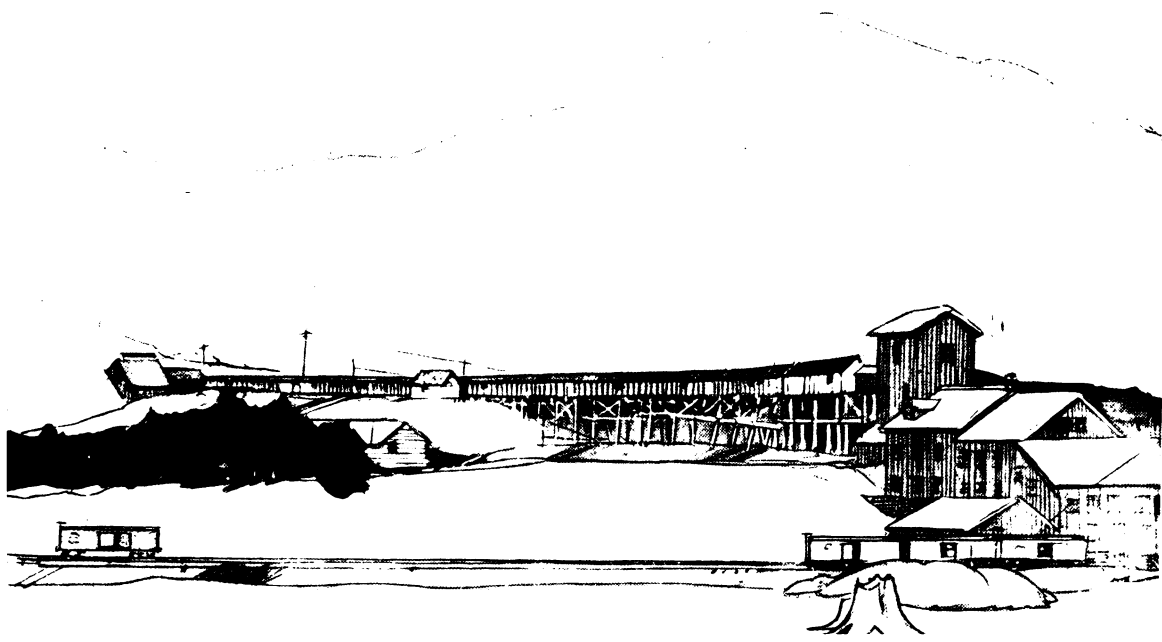
No. 145 TON-CAP



No. 63 TON-CAP



No. 38 TON-CAP



Ton-Cap for Stamp Battery Screens

THE selection of screen for a stamp battery is very important because the tonnage produced through different types of screen varies widely. To secure a screen that will produce the maximum tonnage at the point in sizing that shows the highest extraction is the result that means the greatest profit in operating a stamp mill.

From test runs which are responsible for the wide use of TON-CAP in stamp mills, it has been proven time and again that the maximum tonnage can be produced through TON-CAP screen, furthermore, it is accomplished with equal or better extraction than can be secured from other types of screen.

Another important feature is in the sizing produced by TON-CAP screen, as the screen analysis shows that a greater volume of the sands will be nearer the point of best extraction. There will be less fines or slime because the particles pass the screen when reduced to size of opening instead of being thrown back to be recrushed.

In ordering TON-CAP for a stamp battery the following information is necessary to secure the most efficient service:

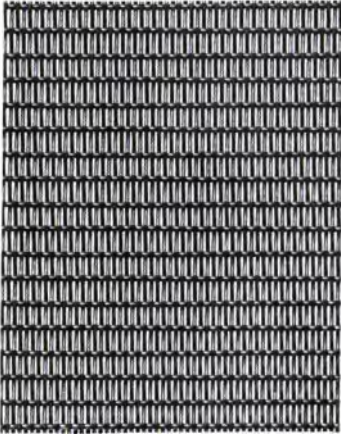
State height and width of sections as TON-CAP cannot be furnished in full rolls. For instance, an order may read:

"40 pcs. 12" x 52" No. 93 Steel TON-CAP Screen."

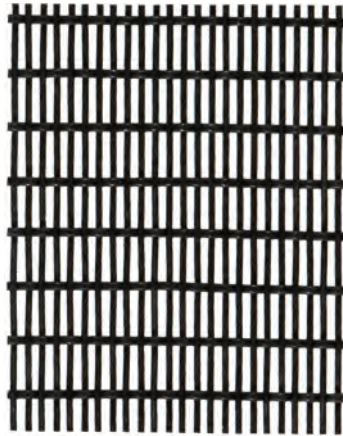
Send a sample of the screen in use where TON-CAP is ordered to produce the same sizing and show an increase in capacity.

Specify the TON-CAP number on repeat orders.

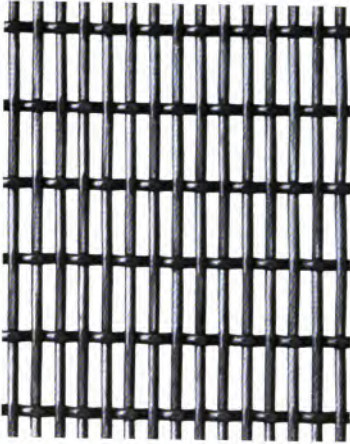
*The W. S. Tyler
Company*



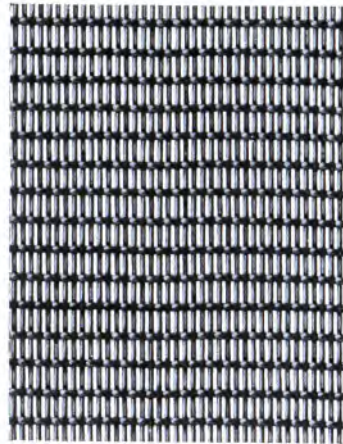
No. 159 TON-CAP



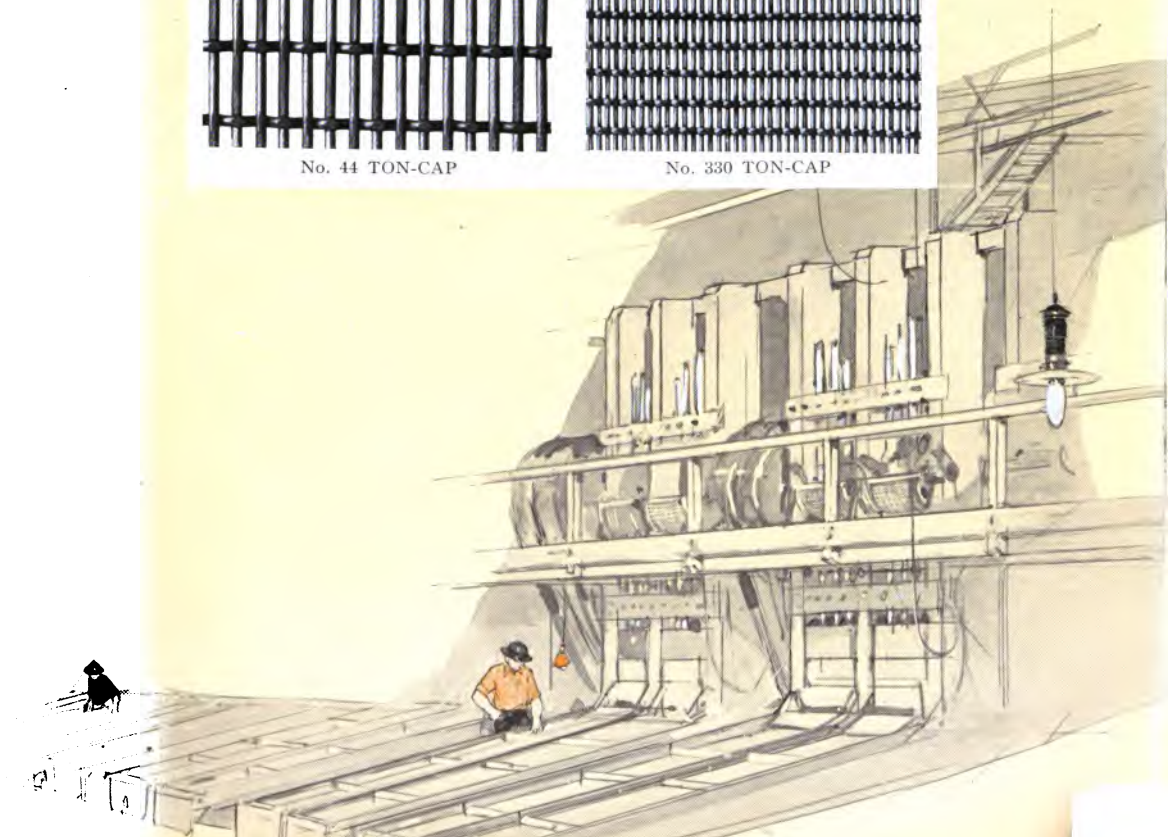
No. 277 TON-CAP



No. 44 TON-CAP



No. 330 TON-CAP



Ton-Cap for Chilian Mill Screens

A MAJORITY of the Chilian mills operated in the United States at the present time are clothed with TON-CAP screen. Naturally there are important reasons for such general adoption of TON-CAP for Chilians, and the first is the greater tonnage that passes through the screen per day. Second, the more uniform sizing and the less tendency to slime. Third, the less horse power required to operate the mill when clothed with TON-CAP. This latter statement has been proven by the meter records in a comparative test where the Chilians were run by electric power.

These advantages are of such importance that wherever Chilian mills are employed, TON-CAP screen should be used. The Company will gladly supply any information that will assist in selecting a screen that will show the greatest returns.

When ordering TON-CAP screen for Rotary mills of this type, it is well to observe the following:

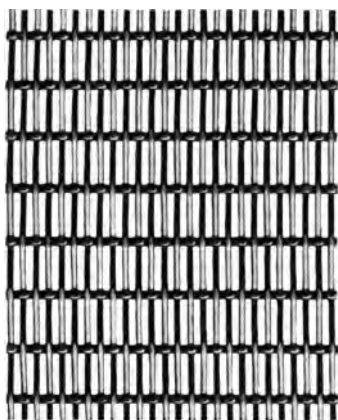
Accompany the order with a template of the screen frames showing how the sections should be cut to fit the frames, as TON-CAP cannot be furnished in full rolls.

Send a sample of the screen in use with the order where TON-CAP is to replace another type of screen. For instance, an order may read:

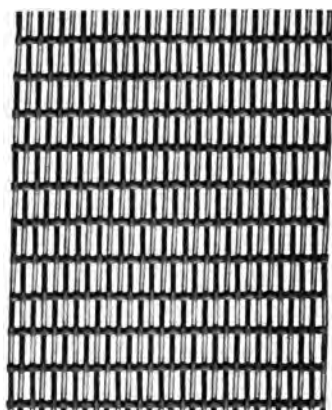
“100 pcs. Steel TON-CAP Screen as per template attached, to produce equivalent sizing to $1\frac{1}{2}$ mm. round hole perforated screen, as per sample mailed under separate cover.”

All TON-CAP screen is designated by number to avoid complicated specifications in ordering, and this number should be stated on repeat orders.

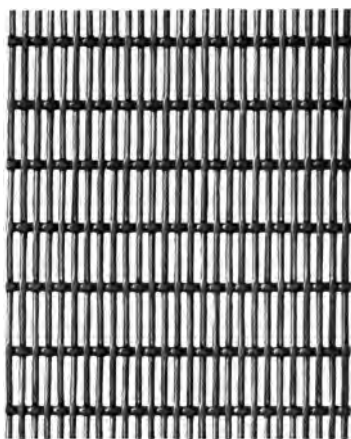
*The W. S. Tyler
Company*



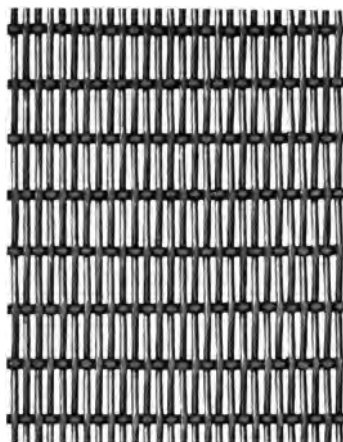
No. 77 TON-CAP



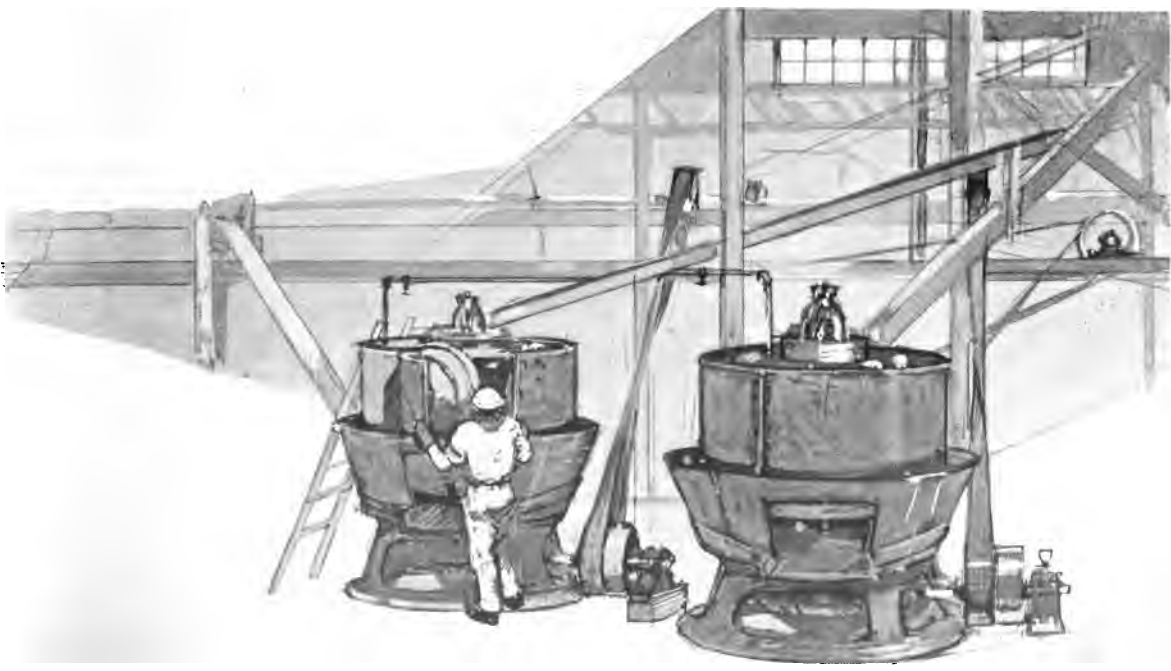
No. 93 TON-CAP



No. 352 TON-CAP



No. 260 TON-CAP



Ton-Cap for Huntington Mill Screens

IT IS very necessary to state on the order that the screen is to be used for Huntington Mills for the wear on the screens is very severe. While a strong screen is required, it is also very necessary that the screen have a very large discharging surface or screening area in order that the mill may show a satisfactory output. The amount of screen surface in a Huntington Mill is very limited and it is therefore essential that the dead surface be reduced to a minimum and at the same time have a screen of sufficient strength to show life.

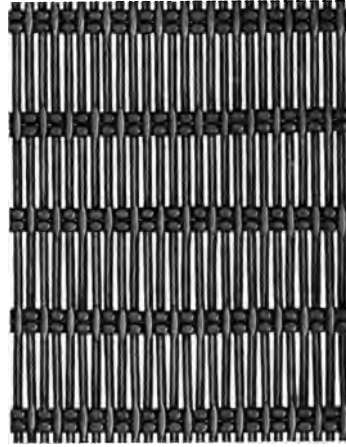
The conditions to be met can best be handled by TON-CAP screen for the reason that the tonnage-capacity produced through this type of screen is always greater than through any other type. TON-CAP screen on a Huntington Mill will produce uniformity in the sizing; that is, the screen product would show about the same range in sizing as from other types of screen but there would be this difference—the TON-CAP product will have a larger per cent in the middle sizes, that is, there will be less fines or slime due to the larger screening area of the TON-CAP. Where the material to be screened is inclined to slime, the TON-CAP screen will be a special advantage because the particles will pass the screen as soon as they are reduced to the size of the screen opening instead of striking dead surface and being thrown back to be re-crushed.

As TON-CAP cannot be furnished in rolls, please specify the length and width of the section which is required to fit the screen frame.

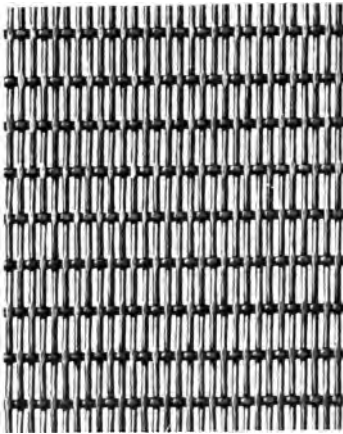
*The W.S. Tyler
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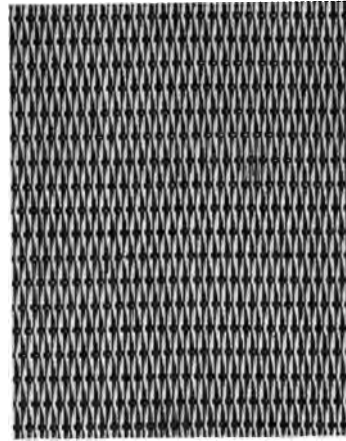
No. 57 TON-CAP



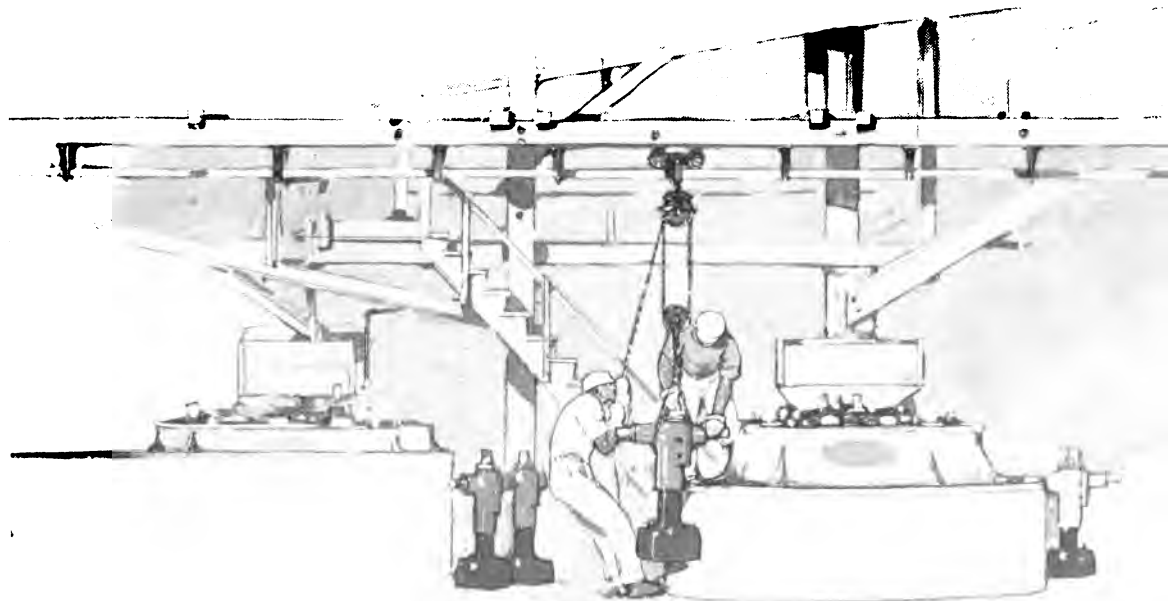
No. 351 TON-CAP



No. 615 TON-CAP



No. 163 TON-CAP



Ton-Cap for Trommel or Revolving Screens

IN TIMES past it has been a very difficult matter to secure a satisfactory screen for trommel work. Often a thick, heavy perforated plate was used with a view of withstanding the severe wear, but the tonnage-capacity of the trommel is seriously reduced by the use of such a screen.

The importance therefore, of developing a TON-CAP screen for this service was apparent and the problem has been solved so satisfactorily, that many patrons are reaping the benefits from the use of TON-CAP for this work.

Not only can TON-CAP be supplied to show satisfactory wear but the important features of greatly increased tonnage-capacity and a more thoroughly screened product are found in the results of using TON-CAP for trommel work.

After a test of this kind, the following report was received from one screen user:

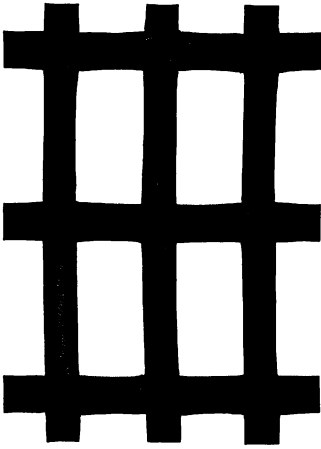
"The TON-CAP screen sent to take the place of the one millimeter round hole perforated metal is showing longer life and one trommel with three sections of TON-CAP does the work of six sections of punched plate."

Orders for heavy TON-CAP screens should show diameter of trommel or revolving reel so that they may be formed to circle.

The following will illustrate an order for trommel screens, giving complete information:

"25 pcs. Steel TON-CAP Screen 36" wide, to cover 3' diameter trommel screen, allowing 5" lap, to replace 3 mm. round hole punched screen."

*The W. S. Tyler
Company*



No. 451 TON-CAP



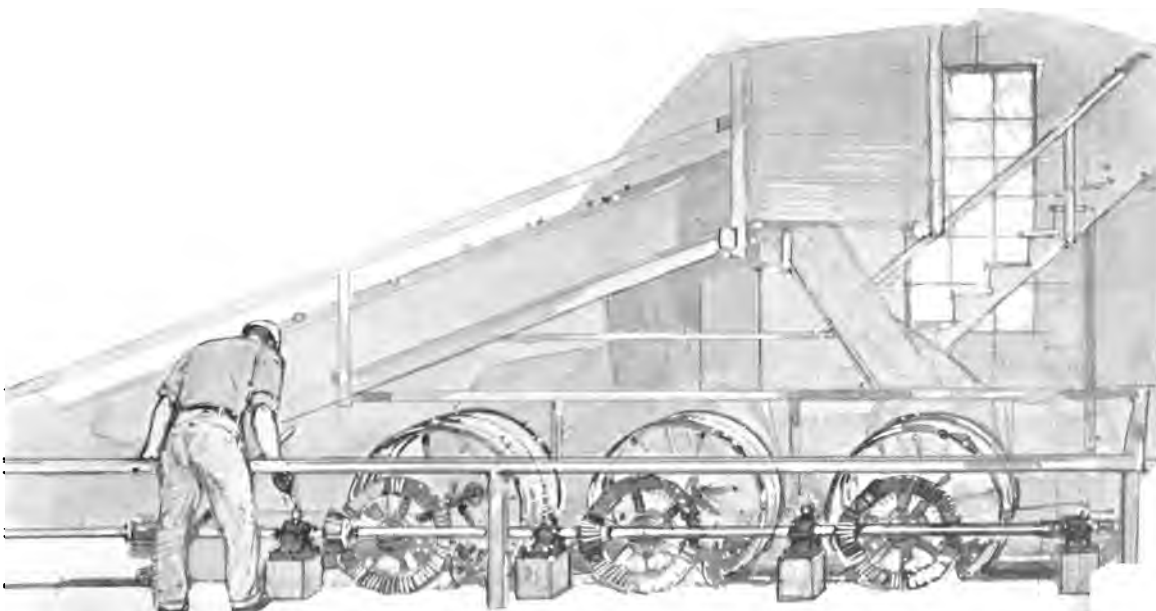
No. 390 TON-CAP



No. 368 TON-CAP



No. 23 TON-CAP



Ton-Cap for Traveling Belt Screens

UNUSUAL skill is required to produce screen that will meet the requirements when used as a traveling belt.

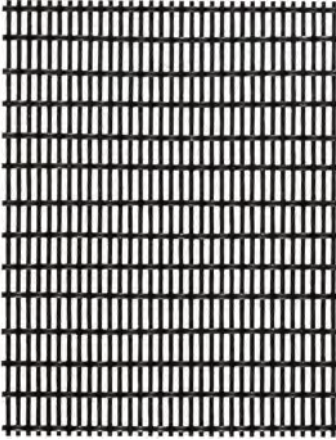
The Company has had a great many years experience in building screens of this character prior to the invention of TON-CAP, therefore, it is easy to understand why TON-CAP screen has so readily been applied to this service.

TON-CAP screen for traveling belts will not only show longer life but greater general efficiency than other screens for this work. Naturally, the tonnage-capacity will be greater than that of other screens and the sizing equally as satisfactory.

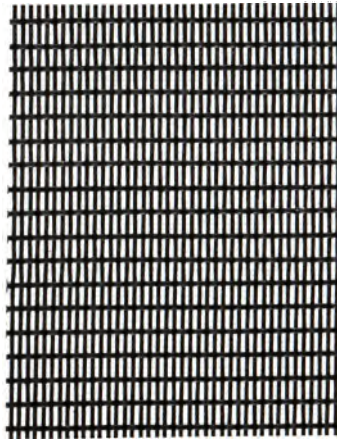
Where TON-CAP is to replace square mesh wire cloth for traveling belt screens, the mesh and size of wire in present use should be mentioned in the order. All TON-CAP screen is designated by number and on repeat orders, this number should be specified. It is also well to remember that in ordering TON-CAP screen for traveling belts, the length and width of the belt should be stated. TON-CAP is never supplied in rolls because the rolling process cannot accommodate long lengths. For instance, an order may read:

“8 pcs. 13' x 24" phosphor bronze TON-CAP to give equivalent sizing to 30 mesh .0135" square mesh brass wire cloth.”

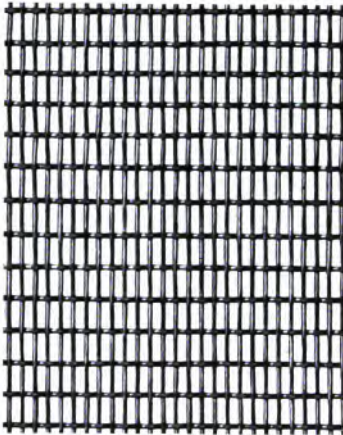
*The W.S. Tyler
Company*



No. 695 TON-CAP



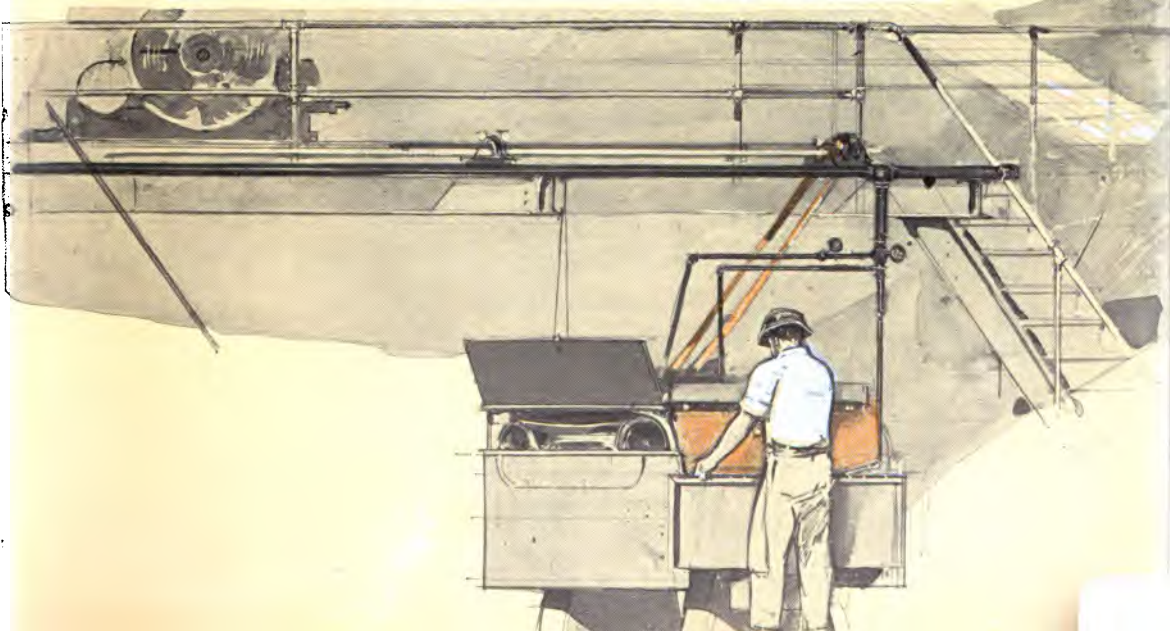
No. 535 TON-CAP



No. 359 TON-CAP



No. 190 TON-CAP



Ton-Cap for Vibrating, Shaking and Jig Screens

A CONSIDERABLE amount of discharge area is usually lost on vibrating screens because of the angle at which they are placed. It is to overcome this difficulty that TON-CAP is used to a very large extent on vibrating screens. The result shows a material increase in tonnage-capacity.

The same is true of shaking screens as they are usually applied at an angle anywhere from 20 to 45 degrees.

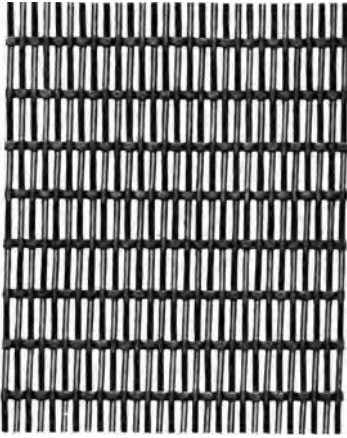
TON-CAP is also used very largely for jig screens because it not only has the advantage of tonnage-capacity, but also the TON-CAP screen does not blind to any considerable extent in the jigs.

Where TON-CAP is to replace another type of screen, please remember in ordering, to describe explicitly the screen it is to replace, giving the size and shape of the opening also the thickness of the wire or plate. TON-CAP cannot be supplied in rolls, therefore it is necessary to state the length and width of sections in the order. For instance, an order may read:

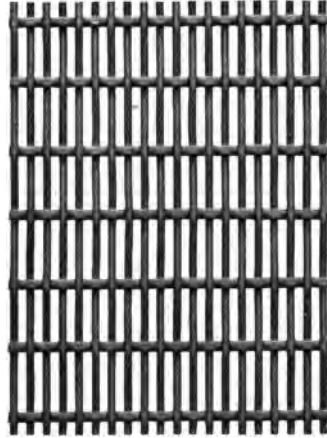
“10 pcs. 48" x 36" Steel TON-CAP Screen,
to produce equivalent sizing to 10 mesh
.041" square mesh wire cloth screening
at an angle of 45 degrees.”

Each screen is designated by a number to avoid the complicated TON-CAP specifications and this number should be stated on repeat orders.

*The W. S. Tyler
Company*



No. 89 TON-CAP



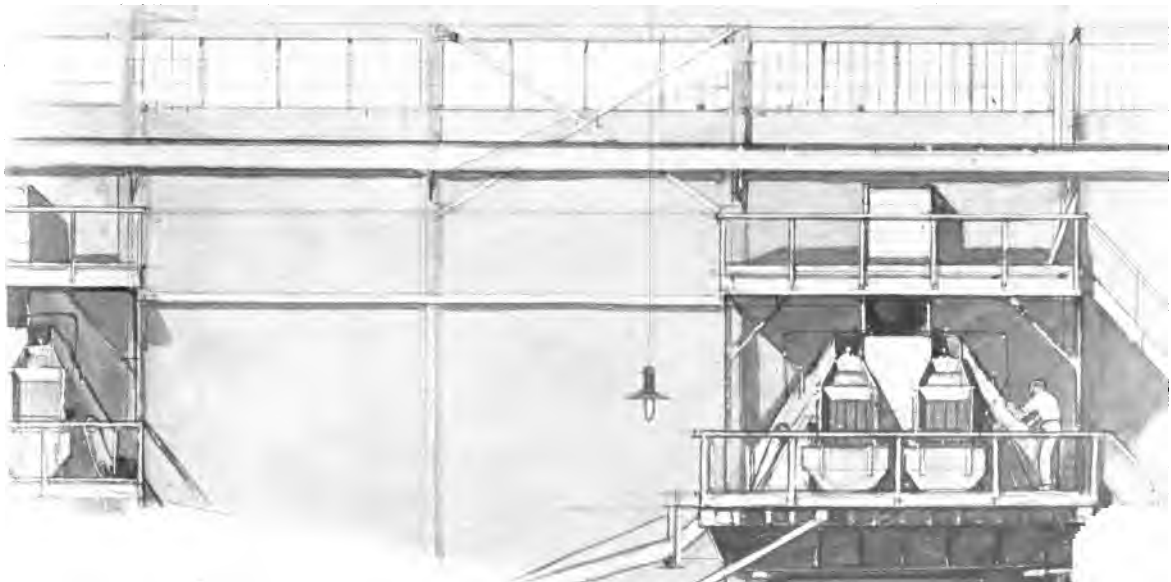
No. 66 TON-CAP



No. 35 TON-CAP



No. 29 TON-CAP



Ton-Cap for Cement Screen

TON-CAP Screen is now being used quite extensively on the various crushing, pulverizing and screening machines used in the manufacture of portland cement.

Some years ago, Ball Mills were equipped generally with a light square mesh wire screen. It was then necessary to use light wire to get the necessary capacity for otherwise the openings would clog. The light wire resulted in short life of screen but since the introduction of TON-CAP for Ball Mill work, it has been found possible to use a heavier wire and get a very satisfactory life of screen with equal or greater tonnage.

In ordering TON-CAP screen for Ball Mills, it is necessary to give the size of the screen frames also a full description of the size and shape of the opening of the screen in use which the TON-CAP is to replace, for instance an order for Ball Mill screen may read:

“50 pcs. 26" x 54" Steel TON-CAP Screen
to produce equivalent sizing to 14 mesh
.028" square mesh wire cloth.”

Mills that grind cement clinker into the finished product can be advantageously equipped with TON-CAP screen, resulting in a very satisfactory life of screen and tonnage capacity. Excellent returns have also been reported where TON-CAP screen is used on mills for grinding coal.

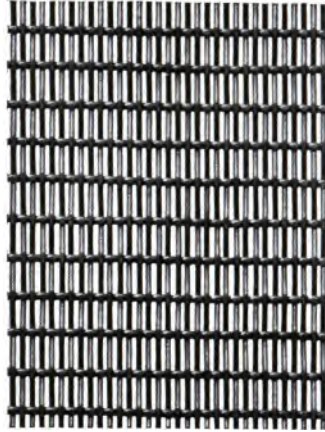
As TON-CAP screen cannot be supplied in rolls, it is necessary to state the length and width of sections in the order. For instance, an order may read:

“20 pcs. 13' 6" x 24" Steel TON-CAP
Screen to produce equivalent sizing to
40 mesh .0135" square mesh wire cloth.”

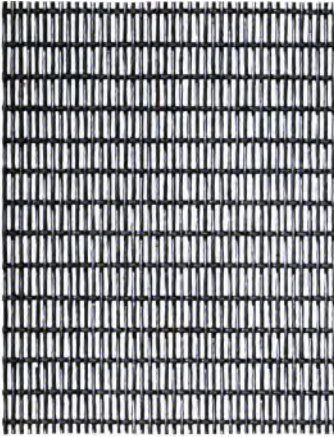
*The W.S. Tyler
Company*



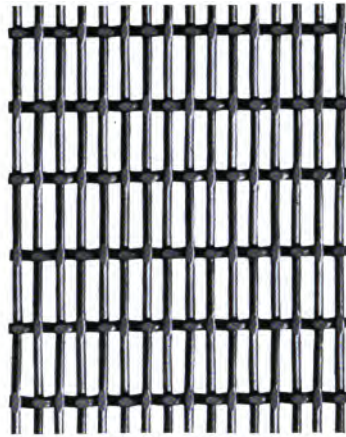
No. 184 TON-CAP



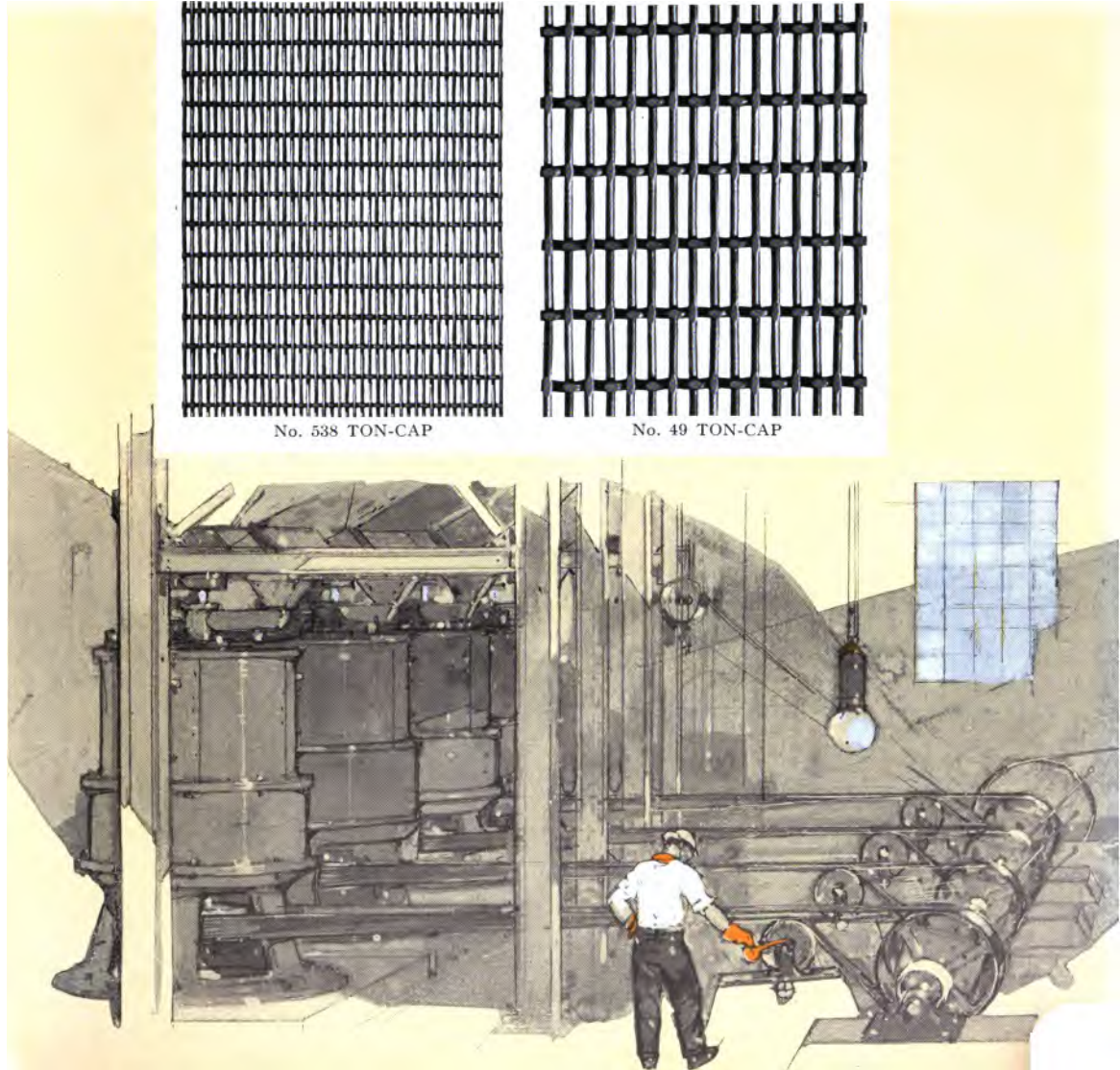
No. 295 TON-CAP



No. 538 TON-CAP



No. 49 TON-CAP



List of Standard Numbers of Ton-Cap Screen

THE list of the standard numbers of TON-CAP screen, width of opening $\frac{1}{4}$ inch and finer, beginning on the opposite page has been compiled with a view of assisting the user in the selection of screens.

This list refers only to standard numbers but the Company is prepared to make TON-CAP screen coarser or finer or of any special character to produce any result desired.

The width of opening is the most important specification in TON-CAP screen because it determines the sizing, therefore it will be observed that the width of slot stated in the decimal of an inch appears in the first column. As some screen users estimate the opening by millimeter, the width of slot in millimeters is shown in the second column.


For the reason that the specifications of TON-CAP screen is very complicated, each combination of meshes and wires is designated by a number. These numbers are placed in the columns under the headings "Extra Heavy," "Heavy," "Medium," "Medium Light" and "Light," which will assist the user in securing the desired weight of screen. The standard lists should prove valuable in ordering small quantities of screen for experimenting and the question of the weight of the screen must be determined according to the use for which it is intended.

To secure a screen for a definite service, the best results are obtained by supplying the Company with information that will enable them to co-operate in selecting a number best adapted for the work.

LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

Width of Opening Inches	Width of Opening Millimeters	Extra Heavy	Heavy	Medium	Medium Light	Light
.250"	6.35 $\frac{m}{m}$	*892	*928	* 3	...	...
.220"	5.588 $\frac{m}{m}$	*890	*903	* 10	...	...
.190"	4.826 $\frac{m}{m}$	*904	*390	*924	...	...
.155"	3.937 $\frac{m}{m}$	*905	*401	* 18	...	...
.140"	3.556 $\frac{m}{m}$	*861	* 25	* 22	...	...
.125"	3.175 $\frac{m}{m}$	* 23	*514	*624	*622	*736
.110"	2.794 $\frac{m}{m}$	*765	*361	*737	*665	*763
.100"	2.540 $\frac{m}{m}$	*629	*367	*661	*599	*843
.090"	2.286 $\frac{m}{m}$	*368	* 35	*755	*341	*906
.080"	2.032 $\frac{m}{m}$	*235	*764	* 38	*930	*248
.070"	1.778 $\frac{m}{m}$	* 40	*895	* 44	*740	*805
.060"	1.524 $\frac{m}{m}$	*241	*691	* 49	*566	*823
.055"	1.397 $\frac{m}{m}$	*554	*346	*835	*305	*498
.050"	1.27 $\frac{m}{m}$	*838	* 58	*309	*499	*588
.0475"	1.207 $\frac{m}{m}$	*349	*812	* 66	*833	*850

List of Standard Numbers of Ton-Cap Screen

NE important reason why the Company should be consulted in such cases is because of the unusual shape of openings, making it necessary to have data and records of TON-CAP sizing to compare with that of other screens.

HOW TO ORDER

In ordering TON-CAP screen, the specifications should be explicit in stating the quantity required, the length and width of the sections, and if possible the number of the screen.

TON-CAP screen must be furnished in sections to accommodate the rolling process and it is therefore preferable to specify the exact length and width of sections required for the screen frames. As an illustration, an order may read:

“12 pieces 10" x 52" No. 330 TON-CAP
Screen.”

In this connection, the size of sections in which TON-CAP is to be used should not exceed fifteen feet in length or five feet in width.

Where screens of irregular size or special shape are required, a template should accompany the order showing how the screens are to be cut.

If the TON-CAP number has not been determined, it is important to state how the TON-CAP is to be used and the kind of material to be screened, together with type of mill in use. If the TON-CAP is to replace another type of screen, it is necessary to state size and shape of openings, together with thickness of wire or metal of the

LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

Width of Opening Inches	Width of Opening Millimeters	Extra Heavy	Heavy	Medium	Medium Light	Light
.045"	1.143 ^m / _m	* 57	* 931	* 908	* 582	* 932
.0425"	1.080 ^m / _m	* 303	* 63	* 590	* 277	* 815
.040"	1.016 ^m / _m	* 813	* 909	* 365	* 270	* 933
.0375"	.953 ^m / _m	* 824	* 279	* 355	* 357	* 262
.035"	.889 ^m / _m	* 321	* 77	* 273	* 819	* 617
.0325"	.826 ^m / _m	* 574	* 910	* 89	* 95	* 796
.030"	.762 ^m / _m	* 371	* 352	* 614	* 520	* 695
.028"	.711 ^m / _m	* 849	* 853	* 97	* 697	* 675
.027"	.686 ^m / _m	* 848	* 260	* 93	* 918	* 793
.026"	.660 ^m / _m	* 350	* 261	* 917	* 671	* 855
.025"	.635 ^m / _m	* 919	* 288	* 792	* 538	* 916
.024"	.610 ^m / _m	* 379	* 92	* 423	* 338	* 915
.023"	.584 ^m / _m	* 615	* 295	* 677	* 858	* 434
.022"	.559 ^m / _m	* 411	* 637	* 914	* 333	* 136
.021"	.533 ^m / _m	* 913	* 421	* 857	* 433	* 382

List of Standard Numbers of Ton-Cap Screen

screen to be replaced. Better still, accompany the order with a small sample of the screen in use — then TON-CAP screen can be selected to produce the same sizing.

On repeat orders, refer to the number on the invoice or on the metal tag attached to all bundles of TON-CAP screen in shipment.

CODE WORDS

There is a code word for each number of TON-CAP screen in the tables shown on pages 49 to 53. On these pages are also code words for specifying the number of pieces, dimensions of each piece, also whether iron, steel, brass, copper, bronze or phosphor bronze.

METAL SPECIFICATIONS

TON-CAP screen is made regularly in iron, steel, brass, copper, bronze and phosphor bronze, but can be made from any metal that may be desired for any purpose.

DOUBLE SHOOT WIRES

Practically all TON-CAP screen is supplied with single shoot or cross wires, that is the wires running at right angles to the length of the slot. There are some instances where double shoot wires show an advantage in screen use, therefore are made accordingly. An illustration of Double Shoot TON-CAP Screen is shown at the right on page 27. All specifications in the standard list are of single shoot wires.

LIST OF STANDARD NUMBERS OF TON-CAP SCREEN

Width of Opening Inches	Width of Opening Millimeters	Extra Heavy	Heavy	Medium	Medium Light	Light
.020"	.508 ^m / _m	*630	*319	*330	*149	*544
.019"	.483 ^m / _m	*527	*318	*129	*143	*152
.018"	.457 ^m / _m	*670	*911	*138	*154	*167
.017"	.432 ^m / _m	*332	*430	*145	*166	*164
.016"	.406 ^m / _m	*912	*438	*542	*162	*775
.015"	.381 ^m / _m	*531	*147	*155	*170	*177
.014"	.356 ^m / _m	*381	*711	*157	*165	*176
.013"	.330 ^m / _m	*541	*178	*750	*181	*188
.012"	.305 ^m / _m	*158	*159	*778	*182	*215
.011"	.279 ^m / _m	*163	*179	*189	*191	*212
.010"	.254 ^m / _m	*710	*777	*190	*214	*217
.009"	.229 ^m / _m	*184	*185	*216	*220	*221
.008"	.203 ^m / _m	*186	*213	*211	*223	*224
.007"	.178 ^m / _m	*222	*490	*491	*500	*502

LENGTHS — INCHES AND MILLIMETERS

Equivalents of Decimal and Common Fractions
of an Inch in Millimeters

From $\frac{1}{64}$ to 1 Inch

In.	$\frac{1}{2}$'s	$\frac{1}{4}$'s	8ths	16ths	32ds	64ths	Millimeters	Decimals of an Inch
					1	1	= .397	.015625
					2	2	= .794	.03125
					3	3	= 1.191	.046875
				1	4	4	= 1.588	.0625
					5	5	= 1.984	.078125
					6	6	= 2.381	.09375
					7	7	= 2.778	.109375
			1	2	8	8	= 3.175	.1250
					9	9	= 3.572	.140625
					10	10	= 3.969	.15625
					11	11	= 4.366	.171875
				3	12	12	= 4.763	.1875
					13	13	= 5.159	.203125
					14	14	= 5.556	.21875
					15	15	= 5.953	.234375
					16	16	= 6.350	.2500
		1	2	4	17	17	= 6.747	.265625
					18	18	= 7.144	.28125
					19	19	= 7.541	.296875
				5	20	20	= 7.938	.3125
					21	21	= 8.334	.328125
					22	22	= 8.731	.34375
					23	23	= 9.128	.359375
			3	6	24	24	= 9.525	.3750
					25	25	= 9.922	.390625
					26	26	= 10.319	.40625
					27	27	= 10.716	.421875
				7	28	28	= 11.113	.4375
					29	29	= 11.509	.453125
					30	30	= 11.906	.46875
					31	31	= 12.303	.484375
	1	2	4	8	32	32	= 12.700	.5
					33	33	= 13.097	.515625
					34	34	= 13.494	.53125
					35	35	= 13.891	.546875
				9	36	36	= 14.288	.5625
					37	37	= 14.684	.578125
					38	38	= 15.081	.59375
					39	39	= 15.478	.609375
			5	10	40	40	= 15.875	.625
					41	41	= 16.272	.640625
					42	42	= 16.669	.65625
					43	43	= 17.066	.671875
				11	44	44	= 17.463	.6875
					45	45	= 17.859	.703125
					46	46	= 18.256	.71875
					47	47	= 18.653	.734375
					48	48	= 19.050	.75
					49	49	= 19.447	.765625
					50	50	= 19.844	.78125
					51	51	= 20.241	.796875
				13	52	52	= 20.638	.8125
					53	53	= 21.034	.828125
					54	54	= 21.431	.84375
					55	55	= 21.828	.859375
			7	14	56	56	= 22.225	.875
					57	57	= 22.622	.890625
					58	58	= 23.019	.90625
					59	59	= 23.416	.921875
				15	60	60	= 23.813	.9375
					61	61	= 24.209	.953125
					62	62	= 24.606	.96875
					63	63	= 25.003	.984375
1	2	4	8	16	32	64	= 25.400	1.000

LENGTHS — HUNDREDTHS OF AN INCH TO MILLIMETERS

From 1 to 100 Hundredths

Hundredths of an Inch	0	1	2	3	4
0	0	.254	.508	.762	1.016
10	2.540	2.794	3.048	3.302	3.556
20	5.080	5.334	5.588	5.842	6.096
30	7.620	7.874	8.128	8.382	8.636
40	10.160	10.414	10.668	10.922	11.176
50	12.700	12.954	13.208	13.462	13.716
60	15.240	15.494	15.748	16.002	16.256
70	17.780	18.034	18.288	18.542	18.796
80	20.320	20.574	20.828	21.082	21.336
90	22.860	23.114	23.368	23.622	23.876
Hundredths of an Inch	5	6	7	8	9
0	1.270	1.524	1.778	2.032	2.286
10	3.810	4.064	4.318	4.572	4.826
20	6.350	6.604	6.858	7.112	7.366
30	8.890	9.144	9.398	9.652	9.906
40	11.430	11.684	11.938	12.192	12.446
50	13.970	14.224	14.478	14.732	14.986
60	16.510	16.764	17.018	17.272	17.526
70	19.050	19.304	19.558	19.812	20.066
80	21.590	21.844	22.098	22.352	22.606
90	24.130	24.384	24.638	24.892	25.146

LENGTHS — MILLIMETERS TO DECIMALS OF AN INCH

From 1 to 100 Units

Milli- meters	0	1	2	3	4
0	0	.03937	.07874	.11811	.15748
10	.39370	.43307	.47244	.51181	.55118
20	.78740	.82677	.86616	.90551	.94488
30	1.18110	1.22047	1.25984	1.29921	1.33858
40	1.57480	1.61417	1.65354	1.69291	1.73228
50	1.96850	2.00787	2.04724	2.08661	2.12598
60	2.36220	2.40157	2.44094	2.48031	2.51968
70	2.75590	2.79527	2.83464	2.87401	2.91338
80	3.14960	3.18897	3.22834	3.26771	3.30708
90	3.54330	3.58267	3.62204	3.66141	3.70078
Milli- meters	5	6	7	8	9
0	.19685	.23622	.27559	.31496	.35433
10	.59055	.62992	.66929	.70866	.74803
20	.98425	1.02362	1.06299	1.10236	1.14173
30	1.37795	1.41732	1.45669	1.49606	1.53543
40	1.77165	1.81102	1.85039	1.88976	1.92913
50	2.16535	2.20472	2.24409	2.28346	2.32283
60	2.55905	2.59842	2.63779	2.67716	2.71653
70	2.95275	2.99212	3.03149	3.07086	3.11023
80	3.34645	3.38582	3.42519	3.46456	3.50393
90	3.74015	3.77952	3.81889	3.85826	3.89763

The Tyler Standard Screen Scale Sieves

This screen scale has as its base an opening of .0029-inch which is the opening in 200 mesh .0021-inch wire, the standard sieve, as adopted by the Bureau of Standards of the United States Government, the openings increasing in the ratio of the square root of 2 or 1.414.

Where a closer sizing is required in the finer openings, a scale is shown below this table from 65 to 200 mesh, in which the openings increase in the ratio of the fourth root of 2 or 1.189.

Code Word	Opening in Inches Ratio $\sqrt[4]{2}$ or 1.414	Opening in Millimeters	Mesh	Diam. Wire, Decimal of an Inch	Brass Frames Covered with Brass Wire Cloth				
					6-Inch Diam. List Price Each	7-Inch Diam. List Price Each	8-Inch Diam. List Price Each	10-Inch Diam. List Price Each	12-Inch Diam. List Price Each
Ifack	1.050	26.67		.149	\$2.65	\$3.30	\$4.00	\$5.45	\$6.95
Ifaiv	.742	18.85		.135	2.65	3.30	4.00	5.45	6.95
Ifaka	.525	13.33		.105	2.65	3.30	4.00	5.45	6.95
Ifamp	.371	9.423		.092	2.65	3.30	4.00	5.45	6.95
Ifarc	.263	6.680	3	.070	2.50	3.10	3.70	5.00	6.30
Ifbes	.185	4.699	4	.065	2.50	3.10	3.70	5.00	6.30
Ifbon	.131	3.327	6	.036	2.50	3.10	3.70	5.00	6.30
Ifbut	.093	2.362	8	.032	2.50	3.10	3.70	5.00	6.30
Ifcar	.065	1.651	10	.035	2.50	3.10	3.70	5.00	6.30
Ifcod	.046	1.168	14	.025	2.30	2.85	3.40	4.50	5.65
Ifday	.0328	.833	20	.0172	2.30	2.85	3.40	4.50	5.65
Ifdot	.0232	.589	28	.0125	2.30	2.85	3.40	4.50	5.65
Ifeco	.0164	.417	35	.0122	2.30	2.85	3.40	4.50	5.65
Ifex	.0116	.295	48	.0092	2.30	2.85	3.40	4.50	5.65
Iferb	.0082	.208	65	.0072	2.30	2.85	3.40	4.50	5.65
Ifeve	.0058	.147	100	.0042	2.85	3.55	4.30	5.90	7.60
Ifged	.0041	.104	150	.0026	3.55	4.50	5.50	7.75	10.20
Ifgik	.0029	.074	200	.0021	4.75	6.15	7.60	10.95	14.75

FOR CLOSER SIZING — 65 to 200 MESH

Code Word	Opening in Inches Ratio $\sqrt[4]{2}$ or 1.189	Opening in Millimeters	Mesh	Diam. of Wire, Decimal of an Inch	6-Inch Diam. List Price Each	7-Inch Diam. List Price Each	8-Inch Diam. List Price Each	10-Inch Diam. List Price Each	12-Inch Diam. List Price Each
Ifgur	.0082	.208	65	.0072	\$2.30	\$2.85	\$3.40	\$4.50	\$5.65
Ifhaz	.0069	.175	80	.0056	2.50	3.10	3.70	5.00	6.30
Ifhim	.0058	.147	100	.0042	2.85	3.55	4.30	5.90	7.60
Ifhul	.0049	.124	115	.0038	3.00	3.80	4.60	6.35	8.25
Ifida	.0041	.104	150	.0026	3.55	4.50	5.50	7.75	10.20
Ifag	.0035	.088	170	.0024	4.00	5.20	6.40	9.10	12.15
Ifmez	.0029	.074	200	.0021	4.75	6.15	7.60	10.95	14.75
Ifzal	Brass pan and cover.....				\$1.75	\$2.00	\$2.25	\$2.75	\$3.25
Ifzun	Tinned pan and cover.....				1.50	1.75	2.00	2.50	3.00

Igann, 6 inches diameter; Igasp, 7 inches diameter; Igaza, 8 inches diameter; Igbom, 10 inches diameter; Igbug, 12 inches diameter. Igevo, include pan and cover.

In ordering testing sieves from this table, they must be specified as the "Tyler Standard Screen Scale Sieves."



THE TYLER STANDARD SCREEN SCALE SIEVES

On sieves made to the Tyler Standard Screen Scale, will be found name plates as shown above, marked with the size of opening both in inches and millimeters, as well as showing the number of the meshes.

The use of the Tyler Standard Screen Scale testing sieves is strongly recommended for making screen analyses, for these testing sieves with openings that increase and decrease throughout the series in a fixed ratio will divide the product in much better proportion than a sieve series with no fixed relationship between the openings.

Many industries have established 200-mesh cloth as the minimum in screen sizing and as the Bureau of Standards of the United States Government has standardized the 200-mesh sieve made from .0021-inch wire, having an opening of .0029-inch, this sieve has been adopted as the base of the Tyler Standard Screen Scale.

The 100-mesh and the 20-mesh sieves in this screen scale also come within the specifications adopted by the Bureau of Standards, so that there are three sieves in the series which have been standardized by the Bureau.

When it is necessary to carry an analysis finer than 200 mesh, sieves can be supplied as fine as 260 mesh in plain cloth and 300 mesh in twilled cloth.

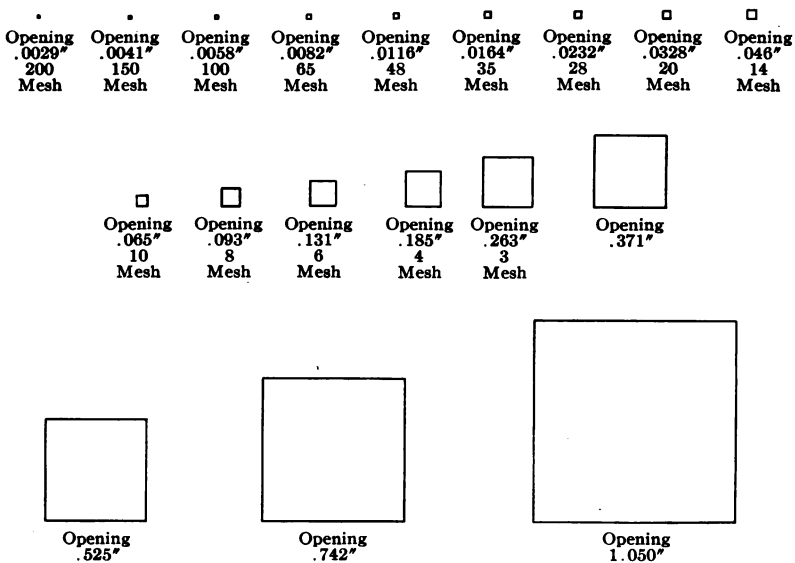
The ratio between the different sizes of the screen scale has been taken as 1.414 or the square root of 2, as recommended by Rittinger in his work on ore dressing. The niceness of this will be apparent from the following:



The Tyler Standard Screen Scale Sieves

taking .0029-inch or .074 millimeter, the opening in the 200-mesh sieve as the base or starting point, the diameter of each successive opening is exactly 1.414 times the opening in the previous sieve. It also makes the area or surface of each successive opening in the scale just double that of the next finer or half that of the next coarser sieve. In other words, the diameters of the successive sizes have a constant ratio of 1.414 while the areas of the successive openings have a constant ratio of 2.

This constant ratio in the openings is shown drawn to scale. To illustrate: the opening .093-inch in the (8-mesh) sieve is 1.414 times the opening in the preceding sieve .065-inch (10-mesh). The area of the opening in .093-inch (8-mesh) sieve is twice that of .065-inch (10-mesh) and just half the area of the opening in the .131-inch (6-mesh) sieve.



Another advantage in this selection of ratio is that by skipping every other screen, you have a ratio of diameter of 2 to 1, by skipping two sizes you have a ratio of 3 to 1 (approximately), and by skipping three sizes, you get a

ratio of 4 to 1, so that in selecting a screen scale for concentrating work, for instance, you can pick out from the table without any calculation a 1.414, 2, 3, or 4 to 1 ratio of opening.

The Tyler Standard Screen Scale with a 1.414 ratio has eighteen sieves ranging from .0029-inch (200-mesh) to 1.05-inch opening, making only four sieves in the series that are .0082-inch (65-mesh) and finer, and while this number has been found ample to cover all the requirements in ordinary laboratory practice and in the plotting of curves showing a screen analysis, yet, to provide for a closer sizing where it is necessary in the finer sizes, the table on page 44 will be found to contain three intermediate sieves making seven sieves .0082-inch (65-mesh) and finer.

The screen scale in the lower table is based on an opening of .0029-inch and increases in series in the ratio of the fourth root of 2 or 1.189, the factor recommended by Prof. Richards in his work on ore dressing. This then has a ratio of 1.189 or the fourth root of 2 between the sizes .0082-inch (65-mesh) and .0029-inch (200-mesh) or a difference in the areas between these sizes of about 1.5 times instead of 2. This closer ratio can be carried through the coarser sizes if found to be necessary.

In the Tyler Standard Screen Scale, the size of opening has been placed in the first column of the table on account of its importance. The term "mesh" has been made secondary and its use should be discontinued as far as possible. In a technical sense, the word "mesh" is meaningless, unless the diameter of the wire is also given, so that the opening is determined. The size of opening is the measure of the product and the mesh and diameter of wire are only valuable as a means of determining the size of opening. However, the mesh and diameter of wire have also been shown in the tables for the convenience of those who still wish to use "mesh" in referring to testing sieves.

Graphic Illustration of Screen Analysis

There are many advantages in the graphic method of illustrating the data obtained in a screen analysis. Plotted curves of the crushings by different methods or from two competing machines, for instance, express the differences in a more striking and concise manner than does the tabulated data. Of the several methods of plotting these curves, the cumulative direct plot and cumulative logarithmic plot are the two most valuable and generally used. The curves in either plan are plotted by marking the cumulative percentages of the material which remains on the sieves on the corresponding vertical lines drawn from the several openings on the horizontal scale of the diagram. After drawing in the curve, the percentages remaining on any set of openings other than those of the testing sieves used, can be found by interpolation and in this way the re-distribution of the same material by any assumed set of openings can be determined.

The W. S. Tyler Company will furnish in connection with sieves made to the Tyler Standard Screen Scale, specially ruled paper for plotting curves as described above. The size of the sheets being $8\frac{1}{2} \times 11$ inches and of suitable paper for making blueprints, put up in pads of 25 sheets each. These diagram sheets for plotting curves will also have printed on them the Tyler Standard Screen Scale with a blank column left for noting the weight of the material remaining on each testing sieve, a column for the percentage of weight and a column for the cumulative per cent of weight.

Testing Sieve Catalogue No. 36 covers the subject of Tyler Standard Screen Scale sieves fully, also illustrates and describes the method of using the plotting paper.

This catalogue will be sent upon request.

TELEGRAPH AND CABLE CODE

THERE is a code word shown for each number of TON-CAP screen in the following tables, also code words for specifying the number of pieces, dimensions of each piece, also whether brass, steel, copper, bronze or phosphor bronze is required. If no metal is mentioned, steel will be furnished.

Each code word contains five letters. In sending cable messages, two words can be run together and sent as one word.

SPECIMENS OF CODE MESSAGES

LABIL	LAJUW	LALUY	LOBEH	LOJIR	ACZOK LUKEL
Ship us by freight	50 Pcs.	10 Ft.	6 In.	36 In.	No. 23 Brass TON-CAP
LABAJ	LAJOV	LOFIM	LUDEF	LOBUL	AGVOM
Ship us by express	40 Pcs.	21 In.	½ In.	9 In.	No. 324 Steel TON-CAP

THE W. S. TYLER COMPANY CABLE ADDRESS—
"TYLER CLEVELAND"

CODE WORDS FOR ORDERING TON-CAP SCREEN

Code Word		Code Word	
Labaj. . . .	Ship us by express	Labyr . . .	Ship by boat to
Labeb	Ship by express to	Lacak	Ship us by express, C. O. D.
Labil	Ship us by freight	Lacel	Ship us by freight, S. D. vs.
Labom	Ship by freight to		B. L.
Labun	Ship us by boat	Lacim	Duplicate our order of

TABLE INDICATING NUMBER OF PIECES

Code Word	No. of Pieces	Code Word	No. of Pieces	Code Word	No. of Pieces	Code Word	No. of Pieces
Lacon.	2	Lafip.	11	Laher.	20	Lajov.	40
Lacup.	3	Lafor.	12	Lahis.	21	Lajuw.	50
Ladal.	4	Lafus.	13	Lahot.	22	Lajyx.	100
Ladem.	5	Lagan.	14	Lahuv.	23	Lajza.	200
Ladin.	6	Lagep.	15	Lahyw.	24	Lakab.	300
Ladop.	7	Lagif.	16	Lajar.	25	Lakaf.	500
Ladur.	8	Lagos.	17	Lajes.	30	Lakag.	800
Lafam.	9	Lagut.	18	Lajit.	35	Lakah.	1000
Lafen.	10	Lahap.	19				

Telegraph and Cable Code

TABLE OF FEET INDICATING DIMENSIONS OF PIECES

Code Word	No. of Feet	Code Word	No. of Feet	Code Word	No. of Feet	Code Word	No. of Feet
Lakas	2	Lasaz	30	Lebay	58	Lehoj	86
Laket	3	Laseb	31	Lebez	59	Lehuk	87
Lakiv	4	Lasic	32	Lebib	60	Lejeh	88
Lakow	5	Lasod	33	Leboc	61	Lejij	89
Lakux	6	Lasuf	34	Lebud	62	Lejok	90
Lalat	7	Latab	35	Lecaz	63	Lejul	91
Lalev	8	Latec	36	Lecab	64	Lekah	92
Lalox	9	Latid	37	Lecic	65	Lekik	93
Laluy	10	Latof	38	Lecod	66	Lekol	94
Lamav	11	Latug	39	Lecuf	67	Lekum	95
Lamew	12	Lavac	40	Ledab	68	Lelaj	96
Lamix	13	Laved	41	Ledec	69	Lelek	97
Lamoy	14	Lavif	42	Ledid	70	Lelil	98
Lamuz	15	Lavog	43	Ledof	71	Lelom	99
Lanaw	16	Lavuh	44	Ledug	72	Lelun	100
Lanex	17	Lawad	45	Lefac	73	Lemak	125
Lanoz	18	Lawef	46	Lefed	74	Lemel	150
Lanub	19	Lawig	47	Lefif	75	Lemim	175
Lapax	20	Lawoh	48	Lefog	76	Lemon	200
Lapey	21	Lawuj	49	Lefuh	77	Lemup	250
Lapiz	22	Laxaf	50	Legad	78	Lenal	300
Lapob	23	Laxeg	51	Legef	79	Lenem	400
Lapuc	24	Laxih	52	Legig	80	Lenin	500
Laray	25	Laxuk	53	Legoh	81	Lenop	600
Larez	26	Lazah	54	Leguj	82	Lenur	700
Larib	27	Lazik	55	Lehaf	83	Lepam	800
Laroc	28	Lazol	56	Leheg	84	Lepen	900
Larud	29	Lazum	57	Lehih	85	Lepip	1000

TABLE OF INCHES INDICATING DIMENSIONS OF PIECES

Code Word	Inches	Code Word	Inches	Code Word	Inches	Code Word	Inches
Lobag	5	Logem	25	Loles	45	Loroz	65
Lobeh	6	Login	26	Lolit	46	Lorub	66
Lobji	7	Logop	27	Lolov	47	Losax	67
Lobok	8	Logur	28	Loluw	48	Losey	68
Lobul	9	Loham	29	Lomas	49	Losig	69
Locah	10	Lohen	30	Lomet	50	Losob	70
Locik	11	Lohip	31	Lomiv	51	Lotay	71
Locol	12	Lohor	32	Lomow	52	Lotez	72
Locum	13	Lohus	33	Lomux	53	Lotib	73
Lodak	14	Lojan	34	Lonat	54	Lotoc	74
Lodej	15	Lojep	35	Lonev	55	Lotud	75
Lodil	16	Lojir	36	Lonox	56	Lovaz	76
Lodom	17	Lojos	37	Lonuy	57	Loveb	77
Lodun	18	Lojut	38	Lopav	58	Lovic	78
Lofak	19	Lokap	39	Lopew	59	Lovod	79
Lofel	20	Loker	40	Lopix	60	Lovuf	80
Lofim	21	Lokis	41	Lopoy	61	Lowab	81
Lofon	22	Lokot	42	Lopuz	62	Lowec	82
Lofup	23	Lokuv	43	Loraw	63	Lowid	83
Logal	24	Lolar	44	Lorex	64	Lowof	84

TABLE OF FRACTIONS EITHER OF INCHES OR FEET

Code Word	Fraction	Code Word	Fraction	Code Word	Fraction	Code Word	Fraction
Lubab	$\frac{1}{16}$	Luced	$\frac{1}{16}$	Ludig	$\frac{1}{16}$	Lugeh	$\frac{1}{16}$
Lubec	$\frac{1}{8}$	Lucif	$\frac{1}{8}$	Ludoh	$\frac{1}{8}$	Lugij	$\frac{1}{8}$
Lubid	$\frac{1}{4}$	Lucog	$\frac{1}{4}$	Luduj	$\frac{1}{4}$	Lugok	$\frac{1}{4}$
Lubof	$\frac{3}{8}$	Lucuh	$\frac{3}{8}$	Lufaf	$\frac{3}{8}$	Lugul	$\frac{3}{8}$
Lubug	$\frac{1}{2}$	Ludad	$\frac{1}{2}$	Lufih	$\frac{1}{2}$	Luhah	$\frac{1}{2}$
Lucac	$\frac{3}{4}$	Ludef	$\frac{3}{4}$	Lugag	$\frac{3}{4}$		

TABLE INDICATING MATERIALS

Code Word	Material	Code Word	Material	Code Word	Material
Lujom	Steel	Lukon	Tinned Brass	Lulin	Tinned
Lukak	Iron	Lukup	Tinned Copper	Lulop	Light Tinned
Lukel	Brass	Lulal	Bronze	Lulur	Galvanized
Lukim	Copper	Lulem	Phosphor Bronze		

TABLE INDICATING NUMBER OF TON-CAP SCREEN

Code Word	No.	Code Word	No.	Code Word	No.	Code Word	No.
Acued	1	Adjal	84	Afdor	167	Agake	250
Acufs	2	Adjer	85	Afdre	168	Agalp	251
Acuik	3	Adjis	86	Afduz	169	Agalk	252
Acujo	4	Adjop	87	Afeaf	170	Agaso	253
Aculu	5	Adjun	88	Afebe	171	Agaty	254
Acume	6	Adlam	89	Afein	172	Agaws	255
Acuny	7	Adled	90	Afeno	173	Agbay	256
Acuof	8	Adlik	91	Afeod	174	Agbil	257
Acupi	9	Adlof	92	Aferk	175	Agbot	258
Acurp	10	Adlur	93	Affat	176	Agdal	259
Acuta	11	Admag	94	Affdo	177	Agder	260
Acvak	12	Admin	95	Affom	178	Agdis	261
Acvid	13	Admok	96	Affug	179	Agdop	262
Acvor	14	Admub	97	Afguy	180	Agdun	263
Acvuz	15	Adnas	98	Afhaf	181	Agebl	264
Acwal	16	Adnek	99	Afhaf	182	Agefa	265
Acwer	17	Adnir	100	Afhit	183	Agego	266
Acwis	18	Adnum	101	Afhul	184	Ageig	267
Acwop	19	Adoac	102	Afhuk	185	Agels	268
Acwun	20	Adobi	103	Afilm	186	Agfay	269
Aczag	21	Adoce	104	Afina	187	Agges	270
Aczin	22	Adoez	105	Afion	188	Aggip	271
Aczok	23	Adofa	106	Afiro	189	Aggon	272
Aczub	24	Adogo	107	Afiut	190	Aggro	273
Adabt	25	Adoig	108	Afjan	191	Aggut	274
Adach	26	Adols	109	Afjet	192	Aghem	275
Adady	27	Adorf	110	Afieb	193	Aghog	276
Adags	28	Adpaf	111	Aflif	194	Agico	277
Adako	29	Adpeg	112	Afloz	195	Agips	278
Adalf	30	Adpit	113	Afluv	196	Agirb	279
Adami	31	Adpol	114	Afmam	197	Agish	280
Adanz	32	Adpuk	115	Afmmd	198	Agitt	281
Adaoc	33	Adreb	116	Afmik	199	Agive	282
Adard	34	Adrif	117	Afmof	200	Agjam	283
Adase	35	Adroz	118	Afmur	201	Agjed	284
Adaup	36	Adruv	119	Afnag	202	Agjil	285
Adavu	37	Adsaz	120	Afnin	203	Agjof	286
Adboy	38	Adsby	121	Afnok	204	Agjur	287
Adcak	39	Adsep	122	Afnub	205	Agkel	288
Adcid	40	Adsim	123	Afobs	206	Aglav	289
Adcla	41	Adsos	124	Afock	207	Aglew	290
Adcor	42	Adste	125	Afoka	208	Aglic	291
Adcre	43	Adsul	126	Afold	209	Aglob	292
Adcuz	44	Adtap	127	Afomp	210	Aglux	293
Addey	45	Adtga	128	Afong	211	Agmaf	294
Adeab	46	Adtox	129	Aforc	212	Agmeg	295
Adeds	47	Adtud	130	Afovo	213	Agmit	296
Adeen	48	Aduct	131	Afowe	214	Agmol	297
Adefu	49	Aduff	132	Afpal	215	Agmuk	298
Adeky	50	Adulg	133	Afpur	216	Agmab	299
Adelz	51	Adunn	134	Afpop	217	Agnen	300
Adenk	52	Aduph	135	Afpun	218	Agnix	301
Aderg	53	Adury	136	Afraz	219	Agnuc	302
Adesm	54	Aduts	137	Afrep	220	Agoba	303
Adeth	55	Aduza	138	Afrim	221	Agoco	304
Adeva	56	Advan	139	Afros	222	Agodi	305
Adewo	57	Advet	140	Afrul	223	Agobv	306
Adfes	58	Adwel	141	Afsaa	224	Agohc	307
Adfip	59	Adyax	142	Afsck	225	Agofv	308
Adfon	60	Adyem	143	Afsir	226	Agoks	309
Adfro	61	Adyog	144	Afspe	227	Agopa	310
Adfut	62	Adzat	145	Afsun	228	Agosu	311
Adgar	63	Adzef	146	Aftav	229	Agrox	312
Adgiz	64	Adzom	147	Aftew	230	Agrov	313
Adgno	65	Adzug	148	Aftic	231	Agrow	314
Adgod	66	Afads	149	Aftob	232	Agkaw	315
Adguf	67	Afafu	150	Aftux	233	Agsev	316
Adhad	68	Afaix	151	Afuga	234	Aguib	317
Adhec	69	Afaky	152	Afups	235	Agsoc	318
Adhov	70	Afank	153	Afurb	236	Agsup	319
Adhus	71	Afarg	154	Afush	237	Agtey	320
Adibs	72	Afath	155	Afway	238	Agulb	321
Adick	73	Afava	156	Afwil	239	Agvat	322
Adiju	74	Afawo	157	Afwot	240	Agvet	323
Adika	75	Afbao	158	Afyaw	241	Agvom	324
Adild	76	Afbez	159	Afyev	242	Agvug	325
Adimp	77	Afbig	160	Afyoc	243	Agwak	326
Ading	78	Afcad	161	Afyup	244	Agwid	327
Adian	79	Afcac	162	Afzem	245	Agwor	328
Aditz	80	Afcov	163	Afzov	246	Agypv	329
Adivo	81	Afcus	164	Agaci	247	Agvos	330
Adiwe	82	Afdak	165	Agadt	248	Agyul	331
Adizy	83	Afdid	166	Agahu	249	Agzan	332

TABLE INDICATING NUMBER OF TON-CAP SCREEN (Con.)

Code Word	No.	Code Word	No.	Code Word	No.	Code Word	No.
Agzet.	333	Ajilbi.	416	Alkim.	499	Amgot.	582
Ahado.	334	Ajifa.	417	Alkos.	500	Amict.	583
Ahaef.	335	Ajils.	418	Alkul.	501	Amift.	584
Ahaly.	336	Ajoaf.	419	Aller.	502	Amiob.	585
Ahasa.	337	Ajons.	420	Allis.	503	Amiry.	586
Ahavs.	338	Ajopy.	421	Allop.	504	Amisp.	587
Ahbaz.	339	Ajoto.	422	Allun.	505	Amits.	588
Ahbep.	340	Ajuba.	423	Alnoy.	506	Amixo.	589
Ahbim.	341	Ajuin.	424	Aloar.	507	Amiza.	590
Ahbos.	342	Ajuke.	425	Alobe.	508	Amjar.	591
Ahbul.	343	Ajulp.	426	Aloiz.	509	Amjiz.	592
Ahdan.	344	Ajuso.	427	Aloki.	510	Amjod.	593
Ahdet.	345	Akaby.	428	Alono.	511	Amjuf.	594
Aheck.	346	Akaca.	429	Alork.	512	Amkey.	595
Ahegl.	347	Akadu.	430	Alotu.	513	Amlat.	596
Aheir.	348	Akaep.	431	Alpax.	514	Amlef.	597
Ahema.	349	Akaim.	432	Alpem.	515	Amliom.	598
Ahepo.	350	Akaos.	433	Alpho.	516	Amlug.	599
Ahfb.	351	Akate.	434	Alpog.	517	Ammap.	600
Ahfup.	352	Akaul.	435	Alpru.	518	Ammox.	601
Ahila.	353	Akazo.	436	Alrey.	519	Ammud.	602
Ahire.	354	Akeba.	437	Alsay.	520	Amnax.	603
Ahkag.	355	Akehu.	438	Alsha.	521	Amnog.	604
Ahkin.	356	Akein.	439	Alsil.	522	Amoer.	605
Ahkub.	357	Akeip.	440	Alsot.	523	Amofo.	606
Ahley.	358	Akeok.	441	Altaw.	524	Amois.	607
Ahnel.	359	Akeso.	442	Altev.	525	Amone.	608
Ahoam.	360	Akeub.	443	Altib.	526	Amoop.	609
Ahoed.	361	Akews.	444	Altoc.	527	Amorm.	610
Ahofs.	362	Akiam.	445	Altup.	528	Amoun.	611
Ahojo.	363	Akijo.	446	Alucu.	529	Amozu.	612
Aholu.	364	Akita.	447	Alues.	530	Ampey.	613
Ahome.	365	Akoec.	448	Alufi.	531	Ampiv.	614
Ahony.	366	Akoib.	449	Aluip.	532	Amran.	615
Ahoof.	367	Akomo.	450	Aluna.	533	Amret.	616
Ahopi.	368	Akubo.	451	Aluon.	534	Amsoy.	617
Ahota.	369	Akucy.	452	Alupe.	535	Amtd.	618
Ahour.	370	Akudi.	453	Aluro.	536	Amtd.	619
Ahowl.	371	Akueb.	454	Alvam.	537	Amtor.	620
Ahpen.	372	Akuif.	455	Alved.	538	Amtre.	621
Ahpix.	373	Akupa.	456	Alvik.	539	Amruz.	622
Ahrac.	374	Akzay.	457	Alvof.	540	Amult.	623
Ahrez.	375	Alaid.	458	Alvur.	541	Amurr.	624
Ahrig.	376	Alala.	459	Alwaf.	542	Amuss.	625
Ahsax.	377	Alaor.	460	Alweg.	543	Amveb.	626
Ahsem.	378	Alare.	461	Alwit.	544	Amvif.	627
Ahsog.	379	Alauz.	462	Alwol.	545	Amvoz.	628
Ahtex.	380	Albab.	463	Alwuk.	546	Amwez.	629
Ahtiv.	381	Alben.	464	Alyan.	547	Amwig.	630
Ahude.	382	Albix.	465	Alyet.	548	Amyas.	631
Ahuit.	383	Albup.	466	Alzap.	549	Amyek.	632
Ahuja.	384	Albwo.	467	Alzox.	550	Amzab.	633
Ahuli.	385	Alcel.	468	Alzud.	551	Amzen.	634
Ahuns.	386	Aldad.	469	Amacu.	552	Anaek.	635
Ahupy.	387	Aldec.	470	Amah.	553	Anafy.	636
Ahver.	388	Aldov.	471	Amamy.	554	Anair.	637
Ahvis.	389	Alidus.	472	Amama.	555	Anama.	638
Ahvop.	390	Aleat.	473	Amape.	556	Anapo.	639
Ahvun.	391	Aledo.	474	Amaro.	557	Anarl.	640
Ahwad.	392	Alege.	475	Amayu.	558	Anaum.	641
Ahwec.	393	Aleom.	476	Ambev.	559	Anbex.	642
Ahwov.	394	Alepu.	477	Ambib.	560	Anbiv.	643
Ahwus.	395	Alesa.	478	Amboc.	561	Anbow.	644
Ahyot.	396	Alevs.	479	Ambup.	562	Ancab.	645
Ahzic.	397	Alewd.	480	Amcag.	563	Ancen.	646
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TABLE INDICATING NUMBER OF TON-CAP SCREEN (Con.)

Code Word	No.	Code Word	No.	Code Word	No.	Code Word	No.
Angib	865	Appom	749	Aswep	833	Atpid	917
Angoc	866	Appug	750	Aswos	834	Atpor	918
Angup	867	Apham	751	Asyok	835	Atpre	919
Anhoy	868	Aphed	752	Asyub	836	Atraf	920
Anial	869	Aphik	753	Aszak	837	Atreg	921
Anier	870	Aphof	754	Aszid	838	Atrir	922
Anifo	871	Aphur	755	Aszor	839	Atrol	923
Anine	872	Apidy	756	Aszuz	840	Atruk	924
Aniop	873	Apigs	757	Atabs	841	Atseb	925
Anirm	874	Areji	758	Atack	842	Atshe	926
Anjat	875	Arene	759	Ataju	843	Atsif	927
Anjef	876	Areop	760	Ataka	844	Atsoz	928
Anjug	877	Areun	761	Atald	845	Atspa	929
Ankac	878	Arezu	762	Atamp	846	Atsuv	930
Ankez	879	Arfax	763	Atang	847	Attef	931
Ankig	880	Arfem	764	Atarc	848	Attom	932
Anmar	881	Arfog	765	Atavo	849	Attug	933
Anmiz	882	Argad	766	Atazy	850	Atuch	934
Anmod	883	Argec	767	Atbes	851	Atudy	935
Anmuf	884	Argov	768	Atbip	852	Atuko	936
Annan	885	Argus	769	Atbon	853	Atulf	937
Annet	886	Arhak	770	Atbro	854	Atumi	938
Anocu	887	Arhid	771	Atbut	855	Atuoc	939
Anoes	888	Arhor	772	Atcar	856	Aturd	940
Anofi	889	Arhuz	773	Atciz	857	Atuse	941
Anoip	890	Ariaf	774	Atcod	858	Atvel	942
Anomy	891	Aride	775	Atcuf	859	Atyab	943
Anona	892	Arili	776	Atday	860	Atyen	944
Anoon	893	Arins	777	Atdil	861	Atzal	945
Anope	894	Ariol	778	Atdot	862	Atzer	946
Anoro	895	Aripy	779	Ateap	863	Atzop	947
Anout	896	Ariud	780	Ateco	864	Atzun	948
Anpay	897	Arito	781	Atega	865	Avade	949
Anpew	898	Arwip	782	Atehi	866	Avait	950
Anpic	899	Arwon	783	Ateox	867	Avaja	951
Anpob	900	Arwut	784	Ateps	868	Avali	952
Anpux	901	Aryam	785	Aterb	869	Avans	953
Anrel	902	Aryed	786	Atesh	870	Avaoi	954
Ansey	903	Aryof	787	Ateve	871	Avapy	955
Anuha	904	Arzib	788	Atfas	872	Avato	956
Anuil	905	Arzoc	789	Atfek	873	Avauk	957
Anule	906	Arzup	790	Atfir	874	Avbax	958
Anuot	907	Asaed	791	Atfum	875	Avbem	959
Anurs	908	Asafs	792	Atgam	876	Avbog	960
Anusi	909	Asclo	793	Atged	877	Avcav	961
Anvep	910	Ascra	794	Atgik	878	Avcew	962
Anvim	911	Asdas	795	Atgof	879	Avcic	963
Anvos	912	Asdum	796	Atgur	880	Avcob	964
Anvul	913	Asemo	797	Athaz	881	Avcry	965
Anweb	914	Asesk	798	Athby	882	Avdaz	966
Anwif	915	Asaus	799	Athca	883	Avdep	967
Anwoz	916	Asewa	800	Athdu	884	Avdim	968
Anyor	917	Asfiv	801	Athep	885	Avdos	969
Anyuz	918	Asgem	802	Athim	886	Avdul	970
Anzad	919	Asgru	803	Athos	887	Avecu	971
Anzec	920	Ashab	804	Athul	888	Avefi	972
Anzov	921	Ashfu	805	Atics	889	Aveip	973
Anzus	922	Ashky	806	Atida	890	Avelu	974
Apabe	923	Ashva	807	Atiem	891	Avena	975
Apaki	924	Asieb	808	Atife	892	Aveon	976
Apano	925	Asiks	809	Atino	893	Avcio	977
Apaoi	926	Asiaf	810	Atimb	894	Aveut	978
Apark	927	Asjit	811	Atiog	895	Avfab	979
Apatu	928	Asjol	812	Atist	896	Avten	980
Apaut	929	Asjuk	813	Ativi	897	Avfax	981
Apbak	930	Askat	814	Atkoy	898	Avgap	982
Apbid	931	Aakef	815	Atlag	899	Avgox	983
Apbor	932	Askom	816	Atlin	900	Avjud	984
Apbuz	933	Askug	817	Atlok	901	Avhey	985
Apchl	934	Asleh	818	Atlub	902	Aviba	986
Apcer	935	Asmaw	819	Atmac	903	Avici	987
Apcis	936	Asmab	820	Atmez	904	Avihu	988
Apcop	937	Asner	821	Atmig	905	Avike	989
Apcun	938	Asnop	822	Atnad	906	Avilp	990
Apdoy	939	Asohi	823	Atnec	907	Avioi	991
Apect	940	Asops	824	Atnov	908	Aviso	992
Apeff	941	Asrev	825	Atnus	909	Avjeb	993
Apeku	942	Asroc	826	Atoct	910	Avjif	994
Apenn	943	Asrod	827	Atoff	911	Avjox	995
Apeob	944	Asuuf	828	Atoic	912	Avjuv	996
Apets	945	Asuac	829	Atoku	913	Avkak	997
Apfey	946	Asufa	830	Atory	914	Avkid	998
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